Supreme Court, U.S.
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No. _____

In The
Supreme Court of the United States

ELKAY MANUFACTURING COMPANY,
Petitioner,

v.

EBCO MANUFACTURING COMPANY
and EBTECH CORPORATION,
Respondents.

On Petition For Writ Of Certiorari To The United States Court Of Appeals For The Federal Circuit

PETITION FOR WRIT OF CERTIORARI

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QUESTION PRESENTED

Under the Court's precedents, as well as the *en banc* decisions of the Federal Circuit, it is well settled that patent claims are to be construed in light of the "intrinsic evidence of record," i.e., the language of the claims, the specification and the prosecution history. In this case, the Court of Appeals for the Federal Circuit materially altered the language of the prosecution history when construing the patent claims. The question presented for review by this Court is:

(1) Is it error for the Federal Circuit, while professing to make a *de novo* determination of patent claim scope, to substantially and materially *recast* the patent prosecution history – by deliberately deleting numerous material words and phrases and by significantly changing the emphasis of others – and then *impute* to the patentee a clear disavowal or surrender of claim scope, based on the court's substantially altered portrayal of the claim amendments, the patentee's arguments and the Patent Examiner's Statement of Reasons for Allowance?

PARTIES TO THE PROCEEDING

The petitioner, Elkay Manufacturing Company, was the plaintiff-appellee below. The respondents, Ebco Manufacturing Company and Ebtech Corporation, were the defendants-appellants below. There are no other parties to this litigation.

Petitioner, Elkay Manufacturing Company, has no parent corporation and no publicly held company owns 10% or more of its stock.

TABLE OF CONTENTS

Page

QUESTIONS PRESENTED i

PARTIES TO THE PROCEEDING ii

TABLE OF CONTENTS iii

TABLE OF AUTHORITIES v

TABLE OF APPENDICES vii

OPINIONS BELOW 1

STATEMENT OF JURISDICTION 1

STATEMENT OF THE CASE 1

I. The Parties And The Subject Matter 1

II. Background 2

III. The Patents In Suit 2

IV. The Claims At Issue 3

V. The Proceedings Below 5

A. The District Court Trial 5

B. The Federal Circuit's Decision 6

1. The Krug Patent 7

2. Elkay's Amendments And Arguments To The Examiner 8

3. The Federal Circuit's Reliance On The Examiner's Reasons For Allowance 11

REASONS FOR GRANTING THE WRIT 13

I. It Was Error For The Federal Circuit To Substantially *Recast* The Patent Prosecution History – By Deliberately Deleting Numerous Material Words And Phrases And By Significantly hanging The Emphasis Of Others – And Then Impute To The Patentee A Clear Disavowal Of Claim Scope Based On The Federal Circuit's Substantially Altered Portrayal Of The Prosecution History 13

CONCLUSION 20

APPENDIX ..... A 1

TABLE OF AUTHORITIES

Page

Cases

Bates v. Coe,
98 U.S. 31 (1878) 14

Cybor Corp. v. FAS Techs., Inc.,
138 F.3d 1448 (Fed. Cir. 1998) (en banc) 16

Graham v. John Deere Co.,
383 U.S. 1 (1966) 14, 15

Markman v. Westview Instruments, Inc.,
52 F.3d 967 (Fed. Cir. 1995) (en banc) 14, 15

Markman v. Westview Instruments, Inc.,
517 U.S. 370 (1996) 13

Vitronics Corp. v. Conceptronic, Inc.,
90 F.3d 1576 (Fed. Cir. 1996) 14, 15, 16

Warner-Jenkinson Co. v.
Hilton Davis Chemical Co.,
520 U.S. 17 (1997) 14

Winans v. Denmead,
56 U.S. (15 How.) 330 (1853) 14

Rules

Fed. Cir. Rule 47.11 6

Statutes

28 U.S.C. § 1254(1) 1

28 U.S.C. §§ 1292(c) and 1295(a)(1) 1

TABLE OF APPENDICES

Page

Opinion of the United States Court of Appeals for the Federal Circuit dated September 15, 1999 ..... A1

Opinion of the United States District Court for the Northern District of Illinois, Eastern Division dated July 10, 1998 ..... B1

Order Amending the Judgment and Opinion of July 10, 1998 dated July 30, 1998; and Supplemental Judgment dated February 4, 1999 ..... C1

Order of the CAFC Denying Combined Petition for Panel Rehearing and Rehearing *en banc* dated November 5, 1999; and Judgment of the Court issued as a Mandate dated November 12, 1999 ..... D1

Five documents from the prosecution history of U.S. Patent 5,222,531 ..... E1

Copies of the drawings of the cited Krug and Savage patents F1

OPINIONS BELOW

The opinion of the United States Court of Appeals for the Federal Circuit is reported at 192 F.3d 973 (Fed. Cir. 1999) and appears at Appendix A. The district court's July 10, 1998, opinion is reported at 1998 WL 397844 (N.D. Ill. 1998) and appears at Appendix B. An order amending the Judgment and Opinion of July 10, 1998, was entered July 30, 1998, and a Supplemental Judgment order was issued by the district court on February 4, 1999, and both of these orders appear at Appendix C.

STATEMENT OF JURISDICTION

The opinion and order of the Court of Appeals for the Federal Circuit was entered on September 15, 1999 (Appendix A). The Court of Appeals denied a timely combined petition for panel rehearing and rehearing *en banc* on November 5, 1999 (Appendix D), and the Judgment of the Court issued as a Mandate on November 12, 1999 (Appendix D).

The Federal Circuit's jurisdiction was based upon 28 U.S.C. §§ 1292(c) and 1295(a)(1). The jurisdiction of this Court is invoked under 28 U.S.C. § 1254(1).

STATEMENT OF THE CASE

I. The Parties And The Subject Matter

Petitioner, Elkay Manufacturing Co. ("Elkay"), and respondents, Ebco Manufacturing Co. and Ebtech Corp. (collectively, "Ebco"), are major competitors in the

manufacture and sale of bottled water coolers. In the trial court, Elkay alleged that Ebco infringed two U.S. patents.

The patented technology at issue in this lawsuit involves specially equipped adapters designed to fit on conventional bottled water coolers. These adapters, which include a special feed tube, permit a five gallon water bottle fitted with a special cap to be inverted, installed on and removed from the cooler without taking off the cap or spilling any water. The adapters also provide for the hygienic delivery of water and inhibit the entry of contaminants into the water cooler reservoir.

II. Background

Elkay developed a special feed tube equipped adapter in the summer of 1988 and filed its first patent application on October 14, 1988. Later that month, Elkay displayed its prototype adapter at the 1988 annual meeting of the International Bottled Water Association. Following fabrication of production tooling, and a period of field testing, Elkay began selling its Water Safe adapters in late 1990. After having obtained and tested samples of Elkay's Water Safe adapter, Ebco designed and began selling its competing WaterGuard adapter in 1992.

III. The Patents In Suit

Elkay's U.S. patents 5,222,531 ("the '531 patent") and 5,289,855 ("the '855 patent") disclose and claim feed tube equipped adapters for bottled water coolers which permit the hygienic flow of water and air between an inverted water bottle and an underlying reservoir open to

atmospheric conditions. The patented adapters are removably mounted on the water coolers and carry a sealing element for closing the normally open upper end of the water cooler reservoir, except for a filter-equipped air passageway through the seal which allows ambient air to enter the reservoir above the water level. The filtered air in the reservoir then flows up through the feed tube to replace water in the bottle that flows down through the feed tube into the reservoir until the water level in the reservoir covers the lower end of the feed tube. At that point no more air can enter the bottle and the downward flow of water automatically stops because the air pressure above the water in the bottle is less than the atmospheric pressure of the air on the water in the reservoir.

IV. The Claims At Issue

The asserted claims of the '531 and '855 patents are set out in full in the opinion of the district court in Appendix B at B7-15. The prosecution history of the '531 patent is relatively short and straightforward and reduced sized photocopies of the five documents pertinent to this Petition appear in Appendix E. Copies of the drawings of the cited Krug and Savage patents appear in Appendix F.

Independent claims 1 and 7 of the '531 patent ("claims 1 and 7") were originally application claims 16 and 22 and are the focus of this Petition.[1] Claims 1 and 7

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[1] With respect to the issues involved here, claim 1 of the '855 patent may be regarded as the same as claim 1 of the '531 patent, and Elkay does not dispute that the prosecution history of the '531 patent is also relevant to the interpretation of the '855 patent.

are written in "combination claim" format and each includes a preamble and a body separated by the words "comprising in combination." It should be noted that each preamble begins by reciting:

> A liquid container support and hygienic delivery system for dispensing drinking water or other potable liquid *to a predetermined maximum liquid level in* a dischargeable reservoir open at its upper end and housed within a cabinet from an inverted *unpressurized* container . . . .

Appendix B at B7, B10. The italicized words were added by Elkay during the prosecution to better distinguish over the cited Krug and Savage prior art patents. Appendix E at E15, E19. The preambles then recite further details of the container and requirements of a special bottle cap.

The first paragraph of each of claims 1 and 7 after the phrase "comprising in combination" begins with the words "removable mounting means." Appendix B at B7, B10. The recitations contained in the remaining body portions of claims 1 and 7 are different, both in terms of what elements are included in the claimed combinations, and how those elements are defined. Included in claim 1, but not in claim 7, is the recitation of:

> *sealing* means *carried by said removable mounting means* for sealingly closing said open upper end of said reservoir

Compare Appendix B at B8 (claim 1), *with id.* at B10-11 (claim 7) (emphasis added). Elkay specifically added the italicized language by amendment to claim 1 to distinguish over the cited prior art Krug patent, Appendix E at E16, E24, and this feature was particularly noted by the Patent Examiner in his Statement of Reasons for Allowance of claim 1, *id.* at E30.

V. The Proceedings Below

Elkay's '531 patent issued on June 29, 1993, and Elkay filed suit against Ebco for patent infringement on August 20, 1993. Elkay's '855 patent issued on March 2, 1994, and was subsequently added to the suit.

A. The District Court Trial

Shortly before trial, the district court conducted a *Markman* analysis based on written briefs submitted by the parties regarding the scope and interpretation of the asserted claims. The parties raised no issue regarding the meaning of any term or language in the claims. Ebco, however, disputed the *scope* of the claim preamble language, contending that the preamble recitations "coaxial cap" and "container" were elements of the claimed combination. Thus Ebco argued, in order for it to be held liable for *directly* infringing the asserted claims, as opposed to inducing infringement or contributory infringement, that Ebco would also have to make, use or sell caps and containers along with its WaterGuard adapters. The district court rejected Ebco's argument. Appendix B at B22.

In a detailed Memorandum Opinion and Order (Appendix B) the district court addressed each of Ebco's defenses and held that Ebco infringed the asserted claims both literally and under the doctrine of equivalents and that Ebco had failed to prove by clear and convincing evidence that the '531 and '855 patents are invalid and unenforceable. The district court awarded Elkay substantial damages based on reasonable royalties and lost profits and entered an injunction, effective August 1, 1998, against further infringement by Ebco. Appendix B at B77-78. Subsequently, the terms of the injunction were amended slightly and the district court awarded Elkay additional damages for the period from the beginning of trial to the date of the injunction. Appendix C at C1-3.

B. The Federal Circuit's Decision

Ebco appealed to the United States Court of Appeals for the Federal Circuit ("Federal Circuit") and on September 15, 1999, a two member panel[2] of that court reversed the district court's decision that Ebco infringed the asserted claims both literally and under the doctrine of equivalents. Appendix A at A17. The Federal Circuit reached its non-infringement decision as a result of its reconstruing Elkay's claims to be limited to a feed tube with a *single* flow path for water and air.

In arriving at its decision, the Federal Circuit first concluded that the "plain meaning" of the asserted claims

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[2] Circuit Judge Rich heard oral argument, but died on June 9, 1999. The case was decided by the two remaining judges in accordance with Fed. Cir. Rule 47.11. Appendix A at A2.

did not require them to be limited to a single feed tube with a single flow path for liquid and air, and the written description underlying them did not compel such a narrow interpretation. *Id.* at A7-9. However, the appellate court concluded, based on a fragmented analysis of the prosecution history, that Elkay had "disavowed" a construction of the feed tube that could include separate flow paths for water and air. *Id.* at A13. The appellate court imputed this "disavowal" to Elkay only by materially recasting the prosecution history including the claim amendments and supporting arguments Elkay made to distinguish its claimed invention from a U.S. patent to Krug that was cited by the Examiner.

1. The Krug Patent

The functional requirements and structural relationships of the pressurized beer dispenser disclosed in the Krug patent are different than those described above and defined in Elkay's asserted patent claims. In Krug, and as shown in the drawings in Appendix F at F1, air under pressure from an outside source (pipe 27 or 34) is introduced into an inverted beer bottle to force beer through a nozzle (19 or 30) connected directly to a closed cooling coil (15) located in an ice box (1) so that the beer flows out of a spigot (16), when the spigot is opened, irrespective of the ambient atmospheric pressure or the forces of gravity. In short, Krug discloses *a closed pressurized system* whereas Elkay's asserted claims define *an open reservoir system* that functions pursuant to the laws of gravity and atmospheric pressure conditions.

2. Elkay's Amendments And Arguments To The Examiner

During prosecution of its '531 patent, Elkay specifically amended its claims and submitted supporting arguments to highlight the differences and to distinguish its claims over the Krug patent. A portion of claim 1 of the '531 patent, which indicates some of the amendments made to distinguish the claim over the Krug patent, is reproduced below. The underlining indicates the language added to original application claim 16 (which issued as claim 1), and the brackets indicate the language deleted from the original claim:

> sealing means carried by said removable mounting means for sealingly closing said open upper end of said reservoir,
>
> an upstanding [probe element] feed tube dimensioned to penetrate into said hollow tubular sleeve portion of said coaxial cap and said container neck to provide a hygienic flow path for delivering liquid from said inverted unpressurized container into said reservoir to said predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container to displace the liquid delivered therefrom,

Appendix E at E16-17. The entirety of the amendments Elkay made to claims 1 and 7 of the '531 can be found in Appendix E at E15-21.

In its accompanying Remarks, Elkay emphasized how the amendments distinguished its claimed invention over the prior art Krug patent:

> Krug has no "reservoir open at its upper end" as recited in the preamble of independent claims [1] and [7] and, more importantly therefore, cannot possibly teach or suggest "sealing means carried by said removable mounting means for sealingly closing said open upper end of said reservoir" (claim [1]) or a "flow path" (claim [1]) or "fluid passage means" (claim [7]) for "delivering liquid from said inverted unpressurized container (claim [1]) into said reservoir up to said predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container" as recited in the body of each of applicants' independent claims [1] and [7].

Id. at E24 (underlining in original). The emphases in Elkay's arguments, as faithfully reproduced above, clearly demonstrate that Elkay distinguished its claimed invention from Krug because Krug lacked the claimed reservoir *sealing means* and Elkay's "flow path" or "fluid passage means" delivered liquid from an *unpressurized* container into a reservoir up to a *predetermined maximum liquid level* and admitted air into the unpressurized container *from said reservoir above said liquid level.* Elkay's amendments and remarks in no way focus on, or relate to

the number of "flow paths" required for accomplishing this exchange of air and liquid between the unpressurized container and the water cooler reservoir open at its upper end to atmospheric conditions.

In its decision, however, the Federal Circuit explicitly stated it chose not to rely on the claim language Elkay added by amendment or argued by Elkay in its remarks, as reproduced verbatim above, to construe the claims.[3] Instead, the Federal Circuit relied on an altered and distorted portrayal of the record, as shown below:

> Krug has no reservoir open at its upper end as recited in the preamble of independent claims [1] and [7] and, more importantly therefore, cannot possible teach or suggest . . . a flow path(claim [1]) or "fluid passage means" (claim [7]) for delivering liquid from said inverted unpressurized container (claim [1]) into said reservoir up to said predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container as recited in the body of each of applicants' independent claims [1] and [7].

Appendix A at A11 (underlining as applied by the Federal Circuit). It is immediately evident that the purported quotation relied on by the appellate court, while reproducing some of the words of Elkay's remarks, bears

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[3] See Appendix A at A7 n.1 (note "Ebco" should read "Elkay" as used both times in n.1).

scant resemblance to the substance of Elkay's argument to the Examiner. The entire clause, with internal emphasis and quotation marks, dealing with the amended sealing means limitation is omitted by the court and the original emphasis in the balance of Elkay's argument is materially changed. Thus, the Federal Circuit truncates and recasts Elkay's arguments as simply directed to *a flow path . . . for delivering liquid . . . and for admitting air.* This substantially altered portrayal of the record, on which the Federal Circuit's decision relies, was advanced by Ebco in its opening brief on appeal and was adopted by the appellate court in reaching and rendering its decision.

3. The Federal Circuit's Reliance On The Examiner's Reasons For Allowance

To support Elkay's alleged "disavowal" with respect to the feed tube limitation, the Federal Circuit also cited the Examiner's Statement of Reasons for Allowance. Here again, the Federal Circuit relied on an altered record that distorted the import of the Examiner's reasons. Additionally, the Federal Circuit failed to realize, or intentionally disregarded, the fact that the Examiner gave different reasons for the allowance of claims 1 and 7.

Specifically, with respect to claim 1, the Examiner stated that the prior art Krug patent did not:

> [T]each a container support with a removable mounting means and feed tube as claimed *wherein a sealing means is provided for the upper end of the reservoir*

> which sealing means is carried by the removable mounting means.

Appendix E at E30 (emphasis added). The Federal Circuit's decision ignores this language and, therefore, effectively expunges these remarks from the prosecution history. The import of the Examiner's statement is clear: claim 1 is distinguished from the Krug patent because Krug does not teach a "sealing means" as required by Elkay's claim. There is no suggestion that Elkay did, or needed to, limit the feed tube recited in claim 1 to a feed tube with a single flow path for both liquid and air.

With respect to claim 7, the Examiner stated that the prior art Krug patent did not:

> [T]each a container support with a removable mounting means and feed tube as claimed wherein the feed tube has a passage means which both dispenses liquid from the container into the reservoir and admits air from the reservoir into the container. *In the Krug reference the coil 15 is the reservoir which receives liquid from the container 6 through the feed tube 13. However, 15 is a closed coil that is always submerged* [i.e., filled] *by the liquid in the container 6.* Therefore, feed tube 13 does not provide a means for admitting air. Note that Krug provides a separate conduit for exterior air 27/34 in order to relieve the vacuum in container 6.

Id. at E30 (emphasis added). The statement of reasons reproduced in the Federal Circuit opinion, however, deletes the language italicized above, effectively expurgating this language also from the prosecution history. When the above Examiner's Statement is viewed as a whole, it is clear, especially in view of the italicized language, that the Examiner recognized that Krug discloses a *closed, pressurized system* (as opposed to Elkay's claimed device which is *unpressurized*) and, therefore, Krug requires a distinct, separate conduit for admitting pressurized air from an outside source into the system. The Examiner does not state or suggest that the exchange of air and water between Elkay's claimed unpressurized container and underlying reservoir open at its upper end to the influence of atmospheric pressure must occur through a *single* feed tube or flow path.

REASONS FOR GRANTING THE WRIT

I. It Was Error For The Federal Circuit To Substantially *Recast* The Patent Prosecution History – By Deliberately Deleting Numerous Material Words And Phrases And By Significantly Changing The Emphasis Of Others – And Then Impute To The Patentee A Clear Disavowal Of Claim Scope Based On The Federal Circuit's Substantially Altered Portrayal Of The Prosecution History

This Court has held that patent claims must be construed in light of the specification and the patent prosecution history. In *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), the Court stated that claims

must be construed in light of the patent specification, *id.* at 384, and this has been the recognized rule since this Court's earliest pronouncements on claim interpretation. *E.g.*, *Winans v. Denmead*, 56 U.S. (15 How.) 330, 338 (1853); *Bates v. Coe*, 98 U.S. 31, 38 (1878). In *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17 (1997), the Court also directed that a careful examination of the prosecution history must be made to ascertain the applicant's real reasons for an amendment when construing patent claims, *id.* at 32-34 & n.7 (stating that a court should explore the reasons for the objection and the manner in which the amendment addressed and avoided the objection); *Graham v. John Deere Co.*, 383 U.S. 1, 33 (1966) ("[A]n invention is construed . . . with reference to the file wrapper or prosecution history in the Patent Office."). Indeed, this Court's precedent is understood by the Federal Circuit bench to require construing a patent claim in light of the language of the claims, the specification and the prosecution history, which are collectively referred to as the "intrinsic evidence of record." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

In the present case, the Federal Circuit failed to follow the authority of this Court, as well as its own precedent, by recasting the prosecution history of the patents in suit when construing Elkay's claims. In short, by altering the language of the prosecution history, the Federal Circuit inherently relied on argument "extrinsic" to the actual record developed by the applicants and the Examiner in the U.S. Patent and Trademark Office. This resulted in numerous errors with respect to the proper

interpretation of Elkay's patent claims, but as pertinent here, repudiates one of the most fundamental canons of claim construction: that claims are to be construed in light of the prosecution history. *Graham*, 383 U.S. 1 at 33; *Markman*, 52 F.3d at 980. Not only is this a departure from this Court's and the Federal Circuit's precedent, but if left to stand would invite the bar and the courts to introduce and rely on extrinsic, attorney-driven argument under the guise of an independent *de novo* review of the prosecution history when interpreting patent claims.

The Federal Circuit has branded reliance on extrinsic evidence as an interpretational tool of last resort, to be avoided in all but the rare instance where the "intrinsic evidence of record" left sufficient ambiguity about the meaning of the claim to justify its use. *Vitronics.*, 90 F.3d at 1583. The Federal Circuit's stated policy considerations leave little room for extrinsic evidence:

> The claims, specification, and file history, rather than extrinsic evidence, constitute the public record of the patentee's claim, a record on which the public is entitled to rely. In other words, competitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee's claimed invention and, thus, design around the claimed invention. Allowing the public record to be altered or changed by extrinsic evidence introduced at trial . . . would make this right meaningless.

Id. (citations omitted).

These policy considerations apply equally to a patent owner. *Id.* A patent owner should be entitled to rely upon an *unaltered public record* when determining the scope and exclusionary reach of his patent claims. Anything less would make the patentee's rights meaningless. Unless reversed or vacated and remanded by this Court, the regime of *de novo* claim interpretation employed by the Federal Circuit here would inevitably result in unpredictability in the administration of the law of patent claiming and, to paraphrase Judge Newman of the Federal Circuit, would release the appellants' imaginations on appeal and add a "sporting element" to the Federal Circuit bench. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1479 (Fed. Cir. 1998) (en banc) (Newman, J., additional views).

With respect to the Federal Circuit's decision in this case, the court concluded that the plain meaning of Elkay's issued patent claims does not require that the claimed "feed tube be limited to a single feed tube with a single flow path for liquid and air." Appendix A at A7-9. Elkay's amendments to the claims during prosecution did not relate to the number of "feed tubes" or "flow paths" for the exchange of liquid and air between an unpressurized container and a reservoir open to atmospheric pressure. Thus, the language added by amendment did not change the "plain meaning" of the claims and *did not* have the effect of limiting the feed tube to a single flow path for liquid and air. Rather, Elkay distinguished its claims over Krug on the basis that *Krug's system was pressurized and*

Elkay's was not; indeed, *Elkay's reservoir is open at its upper end, and Krug has no such reservoir.*

By comparing Elkay's actual Remarks with the underlining shown in the amended claim at Appendix E at E16-17, E24, it is clear (from the quotation marks and the underscoring in the Remarks themselves) that Elkay's Remarks are directed to the true reasons for the amendment. Neither Elkay's amendments nor Remarks had anything to do with whether the claims had one, or more than one, feed tube or flow path for liquid and air, and it was error for the Federal Circuit to reach a contrary conclusion based on rewritten remarks that are not faithful to, and materially alter the prosecution history that resulted in allowance of the '531 patent claims.

As set forth in the fact section of this Petition and in the foregoing argument, the decision of the Federal Circuit below is replete with errors in the interpretation of the asserted claims, as a matter of law. It was clear and reversible error for the Federal Circuit to materially recast the prosecution history:

a) by *ignoring* the specific and extensive claim language Elkay added by amendment to distinguish over Krug;

b) by *deleting* from Elkay's Remarks the focused argument made, with emphasis, in support of certain of those significant claim amendments;

c) by *removing* the emphasis from other portions of Elkay's Remarks and substituting

different emphasis, which materially altered the thrust of Elkay's argument for patentability over Krug;

d) by *omitting entirely* the Examiner's Statement of Reasons for Allowance of claim 1 which was clearly directed to the specific amendments and arguments Elkay made to claim 1;

e) by *excising* two complete sentences from the Examiner's Statement of Reasons for Allowance of claim 7 which were central to understanding that the Examiner predicated his allowance of claim 7 not on the number of feed tubes in Krug, but because Krug had *no* feed tube or fluid passage means for delivering liquid from an inverted unpressurized container into a reservoir *to a predetermined maximum liquid level*, and because Krug had *no* feed tube or fluid passage means for admitting air *from said reservoir above said liquid level* into said container, as recited in Elkay's amended claims;

f) by *misapplying* to claim 1 the Federal Circuit's materially altered version of the Examiner's Reasons for Allowance of claim 7;

g) by *imputing* to Elkay a disavowal of claim scope based on a revisionist portrayal of the prosecution history as recast by the Federal Circuit below; and finally;

h) by *decreeing*, as a matter of law, that Ebco did not infringe the asserted claims literally or under the doctrine of equivalents in view of the alleged disavowal of claim scope imputed to Elkay.

It is respectfully submitted that the Federal Circuit's substantial alteration of the prosecution history in this case violates Elkay's patent rights as granted by the United States Patent and Trademark Office and on which Elkay and the public were entitled to rely. This has grave economic consequences to Elkay and completely undermines the confidence that it and other patentees should have in the integrity of the patent system and the judicial process in enforcing the granted patent claims.

In addressing this Petition, and the explanation of the Federal Circuit's opinion and decision, the Court is respectfully requested to review the language of the opinion against the true prosecution history of the '531 patent. It is anticipated, in response to this Petition, that Ebco will argue that the Federal Circuit reviewed the prosecution history and understood it, notwithstanding the undeniable fact that the Federal Circuit materially altered the prosecution history when writing its opinion. Even a cursory review of the prosecution history, Elkay's Remarks, and the Examiner's Reasons for Allowance, however, belies such an argument by Ebco and demonstrates the danger of basing claim construction on an altered public record.

CONCLUSION

The Federal Circuit's decision in this case repudiates the fundamental tenet of claim construction that claims are to be construed in light of the "intrinsic evidence of record," and undermines the goals of certainty and clarity in interpreting patent claims. Under the unprecedented regime of claim construction evident from the Federal Circuit's decision, the Federal Circuit is free to alter the intrinsic evidence of record when construing patent claims. This Court should permit no such deviation from its own authority, and from the prior case law of the Federal Circuit.

Elkay prays for a writ of certiorari and requests that this Court vacate the decision of the Court of Appeals and direct that Elkay's claims be construed in relation to the actual language of the prosecution history, or in the alternative, review and reverse the Federal Circuit's judgment and opinion.

Respectfully submitted,

February 3, 2000

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APPENDIX

United States Court of Appeals for the Federal Circuit

98-1596, 99-1276

ELKAY MANUFACTURING COMPANY,
Plaintiff-Appellee,
v.

EBCO MANUFACTURING COMPANY
and EBTECH CORPORATION,
Defendants-Appellants.

Berton Scott Sheppard, Leydig, Voit & Mayer, Ltd., of Chicago, Illinois, argued for plaintiff-appellee. With him on the brief were Charles H. Mottier, Pamela J. Ruschau, and Christopher T. Griffith. Of counsel was Ali R. Sharifahmadian.

Darrel C. Karl, Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., of Washington, DC, argued for defendants-appellants. With him on the brief was Donald R. Dunner.

Appealed from: United States District Court for the Northern District of Illinois

Judge Wayne R. Andersen

United States Court of Appeals for the Federal Circuit

98-1596, 99-1276

ELKAY MANUFACTURING COMPANY,
Plaintiff-Appellee,
v.

EBCO MANUFACTURING COMPANY
and EBTECH CORPORATION,
Defendants-Appellants.

DECIDED: September 15, 1999

Before RICH,* PLAGER, and GAJARSA, Circuit Judges.

GAJARSA, Circuit Judge.

Ebco Manufacturing Co. and Ebtech Corp. (collectively, Ebco) appeal the July 10, 1998 decision of the United States District Court for the Northern District of Illinois holding, after a bench trial, that Elkay Manufacturing Co.'s (Elkay's) U.S. Patent Nos. 5,222,531 (the '531 patent) and 5,289,855 (the '855 patent) were valid and infringed by Ebco and awarding damages to Elkay. See Elkay Mfg. Co. v. Ebco Mfg. Co., 1998 WL 397844 (N.D. Ill. 1998). Ebco also appeals the court's February 5, 1999 supplemental judgment awarding Elkay

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* Circuit Judge Rich heard oral argument in this case, but died on June 9, 1999. This case was decided by the remaining judges in accordance with Fed. Cir. Rule 47.11.

additional infringement damages. Because we conclude that Ebco's accused devices do not infringe the asserted claims of these patents pursuant to a proper claim construction, we reverse the district court's infringement decision and consequently vacate the associated damages awards.

BACKGROUND

The technology in this case concerns "no-spill" adapters for bottled water coolers that permit jugs of water to be inserted into coolers with the cap still on the bottle, thereby eliminating the potential problems of spilling or contaminating water when, for example, a bottle is inserted into a cooler. The accused devices, Ebco's WaterGuard I, II, and III no-spill adapters, comprise two concentric tubes designed and constructed so that water flows down the inner tube from the bottle into the cooler and air flows up into the bottle through the annular region formed by the two tubes.

Elkay sued Ebco, claiming that Ebco's WaterGuard devices infringed independent claims 1 and 7 of the '531 patent and claim 1 of the '855 patent, as well as dependent claims 2-4 and 8-10 of the '531 patent and claims 2-3 of the '855 patent. The '531 and '855 patents stem from the same genus. The '531 patent issued on June 29, 1993 from application Ser. No. 898,570 (the '570 application), which was filed as a continuation of application Ser. No. 684,642 (the '642 application). The '855 patent issued on March 1, 1994 from application Ser. No. 58,639 (the '639 application), which was filed as a separate continuation of the '642 application after the '531 patent was allowed.

Claim 1 of the '531 patent reads in part as follows:

1. A liquid container support and hygienic delivery system for dispensing drinking water or other

potable liquid to a predetermined maximum liquid level in a dischargeable reservoir open at its upper end and housed within a cabinet from an inverted unpressurized container having an internal liquid confining surface defined by a substantially rigid, generally cylindrical body with a radially inwardly directed downwardly sloping shoulder portion merging into a generally cylindrical depending neck defining an opening closed by a coaxial cap circumferentially surrounding at least an outer axial portion of said neck and having an internal recess therein including a hollow tubular sleeve portion and a sealing plug portion defining a closed end with a central cavity having internal gripping means therein connected thereto, comprising, in combination,

. . . .

an upstanding feed tube dimensioned to penetrate into said hollow tubular sleeve portion of said coaxial cap and said container neck to provide a hygienic flow path for delivering liquid from said inverted unpressurized container into said reservoir to said predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container to displace the liquid delivered therefrom, said feed tube having upper and lower end portions, means carried by said removable mounting means for rigidly supporting said upstanding feed tube with said upper end projecting upwardly from said bottom end of said entry portion and said lower end depending downwardly from said

> bottom end of said entry portion of said removable mounting means into said reservoir to define said predetermined maximum liquid level, ...

(emphasis of disputed limitation added). Similarly, claim 7 of the '531 patent includes the limitation "an elongated feed tube . . . for admitting air into and dispensing drinking water . . . from within said . . . container," and claim 1 of the '855 patent includes the limitation "an upstanding feed probe . . . to provide a hygienic flow path for delivering liquid from . . . and for admitting air . . . into said container."

In interpreting these limitations, the district court stated that

> the pertinent claim language uses the article "an" to delineate one feed tube or probe. "An" does not qualify or limit the path through which the air and water pass. . . . [T]he asserted claim language does not preclude a separation of the air and water flow or otherwise require the intermingling of air and water within the feed tube.

Elkay, 1998 WL at *12. Based on this construction, the court found that Ebco's WaterGuard no-spill adapters embodied these limitations through their use of concentric feed tubes and that the accused devices infringed the asserted claims of both patents, literally and under the doctrine of equivalents.

DISCUSSION

"An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing." Markman v. Westview

Instruments, Inc., 52 F.3d 967, 976, 34 USPQ2d 1321, 1326 (Fed. Cir. 1995) (en banc), aff'd, 517 US 370, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996). Claim construction is a question of law that we review de novo. See Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456, 46 USPQ2d 1169, 1174 (Fed. Cir. 1998) (en banc). The determination as to whether the claims, as properly construed, read on the accused device presents an issue of fact that, following a bench trial, we review for clear error. See Charles Greiner & Co. v. Mari-Med Mfg., Inc., 962 F.2d 1031, 1034, 22 USPQ2d 1526, 1528 (Fed. Cir. 1992). A district court's infringement decision that is based on an improper claim construction is entitled to no deference when the correct construction of the claim is dispositive of the issue of infringement. See Strattect Sec. Corp. v. General Automotive Specialty Co., 126 F.3d 1411, 1419, 44 USPQ2d 1030, 1036 (Fed. Cir. 1997).

In this case, the claim construction issue centers on "an upstanding feed tube . . . to provide a hygienic flow path for delivering liquid from . . . and for admitting air . . . into said container" limitation in claims 1 and 7 of the '531 patent and claim 1 of the '855 patent. We first discuss the proper construction of this limitation and then compare the properly construed claims to the accused WaterGuard devices. We conclude that the accused devices do not infringe the properly construed asserted claims either literally or under the doctrine of equivalents.

A. Claim Construction

When construing a claim, a court should first look to the intrinsic evidence, i.e., the patent itself, its claims, written description, and, if in evidence, the prosecution history. See Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582, 39 USPQ2d 1573, 1576 (Fed. Cir. 1996). The

court may receive extrinsic evidence to educate itself about the invention and the relevant technology, but the court may not use extrinsic evidence to arrive at a claim construction that is clearly at odds with the construction mandated by the intrinsic evidence. See Key Pharms. v. Hercon Lab. Corp., 161 F.3d 709, 716, 48 USPQ2d 1911, 1917 (Fed. Cir. 1998). We begin with the '531 patent.

1. The '531 Patent

Claim construction begins with the words of the claim. See Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 619-20, 34 USPQ2d 1816, 1819 (Fed. Cir. 1995). We focus on the limitation "an upstanding feed tube . . . to provide a hygienic flow path for delivering liquid from . . . and for admitting air . . . into said container" in claim 1 for convenience because our analysis does not vary concerning the corresponding limitation in claim 7.[1]

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1 Ebco argues that we should construe the following claim language:

> an upstanding feed tube . . . to provide a hygienic flow path for delivering liquid from said invertedunpressurized container into said reservoir to said predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container to displace the liquid delivered therefrom, ...

Ebco asserts that the phrases "[delivering liquid from] said inverted unpressurized container into said reservoir to said predetermined maximum liquid level" and "[admitting air from] said reservoir above said liquid level to displace the liquid delivered therefrom" are essential to properly construe the feed tube limitation. We recognize that claim limitations must be construed in context and do so in this case. These phrases, however, do not add context that

Ebco asserts that the normal, accepted meaning of the use of the articles "a" and "an" requires that the above-quoted limitation be construed as describing a single feed tube with a single path for both air and water. This contention goes too far. While the article "a" or "an" may suggest "one," our cases emphasize that "a" or "an" can mean "one" or "more than one," depending on the context in which the article is used. See Abtox, Inc. v. Exitron Corp., 122 F.3d 1019, 1023, 43 USPQ2d 1545, 1548 (Fed. Cir. 1997) ("[T]he article 'a' suggests a single chamber. However, patent claim parlance also recognizes that an article can carry the meaning of 'one or more,' for example in a claim using the transitional phrase 'comprising.'") (citing North Am. Vaccine, Inc. v. American Cyanamid Co., 7 F.3d 1571, 1575-76, 28 USPQ2d 1333, 1336 (Fed. Cir. 1993)).

The use of the articles "an" and "a" when referring to "feed tube" and "flow path," respectively, suggest a single feed tube with a single flow path for liquid and air. Other language in the claim similarly suggests a single flow path for both fluids. See '531 patent, col. 8, ll. 39-51 ("[S]aid feed tube having a length . . . to permit the discharge of liquid from said container into said reservoir . . . and admission of air from said reservoir above said liquid and into said container."). The asserted claims, however, use the open term "comprising" in their transition phrases. We therefore hold that the plain meaning of "an upstanding feed tube . . . to provide a hygienic flow path for delivering liquid from . . . and for

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affects our analysis of whether this limitation is properly interpreted to include more than one feed tube or flow path for liquid and air. Therefore, we do not focus on them.

admitting air . . . into said container" is not necessarily limited to a single feed tube with a single flow path for both liquid and air. See PPG Indus. v. Guardian Indus. Corp., 156 F.3d 1351, 1354, 48 USPQ2d 1351, 1353 (Fed. Cir. 1998).

We next turn to the written description of the '531 patent. Ebco asserts that the written description confirms that the feed tube must have a single flow path for air and water. There are numerous references to "a feed tube" and "the feed tube" in the written description, see, e.g., '531 patent at col. 5, ll. 9, 25, and 52-53, and the figures show a single feed tube with a single flow path for liquid and air, see id. at Figs. 1, 2, 4a-4c, 6, 7, and 10. Furthermore, the written description does not describe a no-spill adapter design incorporating separate feed tubes for liquid and air or a single feed tube with separate flow paths for liquid and air.

The written description, however, expressly states that it describes a preferred embodiment of the invention. See id. at col. 2, ll. 48-52 ("These and other features and advantages of the invention will be more readily apparent upon reading the following description of a preferred exemplified embodiment of the invention . . . ."). "The general rule, of course, is that the claims of a patent are not limited to the preferred embodiment, unless by their own language." Karlin Tech., Inc. v. Surgical Dynamics, Inc., 177 F.3d 968, 973, 50 USPQ2d 1465, 1469 (Fed. Cir. 1999). The written description thus does not conclusively establish that the meaning of "an upstanding feed tube . . . to provide a hygienic flow path for delivering liquid from . . . and for admitting air . . . into said container" is limited to a single feed tube with a single flow path for liquid and air.

We turn finally to the prosecution history of the '531 patent. "The prosecution history gives insight into what the applicant originally claimed as the invention, and often what the applicant gave up in order to meet the Examiner's objections." Lemelson v. General Mills, Inc., 968 F.2d 1202, 1206, 23 USPQ2d 1284, 1288 (Fed. Cir. 1992); see also Standard Oil Co. v. American Cyanamid Co., 774 F.2d 448, 452, 227 USPQ 293, 296 (Fed. Cir. 1985) ("[T]he prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance."); J.T. Eaton & Co. v. Atlantic Paste & Glue Co., 106 F.3d 1563, 1565, 41 USPQ2d 1641, 1642 (Fed. Cir. 1997) ("The correct meaning of [the disputed] term is established by reading the prosecution history of the '584 patent. That is a legal exercise which we are obligated to conduct independently."). Ebco asserts that the prosecution history of the patents shows that Elkay gave up a construction of the feed tube/probe limitation that could include an apparatus with separate flow paths for liquid and air. We agree.

In an office action dated November 18, 1992, the Examiner rejected independent claims 16 and 22 of the '570 application (which correspond to claims 1 and 7, respectively, in the '531 patent) pursuant to 35 U.S.C. § 103, based on U.S. Patent No. 2,057,238 (Krug) in view of U.S. Patent No. Re 32,354 (Savage). Krug describes a beer dispensing apparatus with two separate feed tubes, one for pressurized air and one for beer.[2] Savage describes

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2 Krug shows a preferred embodiment in which the air feed tube is contained within the beer feed tube. This is similar to the

an apparatus that allows a liquid feed tube to be connected to a collapsible bag so that air is not introduced into the bag as the connection is made.

Elkay responded to this rejection by distinguishing Krug on the ground that, inter alia, Elkay claimed "a flow path . . . for delivering liquid . . . and for admitting air":

> Krug has no reservoir open at its upper end as recited in the preamble of independent claims 16 and 22 and, more importantly therefore, cannot possibly teach or suggest . . . a flow path (claim 16) or "fluid passage means" (claim 22) for delivering liquid from said inverted unpressurized container (claim 16) into said reservoir up to said predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container as recited in the body of each of applicants' independent claims 16 and 22.

(internal quotations omitted and emphasis added). Because Krug teaches the use of separate liquid and air feed tubes, when Elkay made this argument it necessarily relinquished a construction of its claim language that could include separate feed tubes. Consequently, Elkay cannot successfully argue now that the feed tube limitation in claims 1 and 7 is properly construed to include separate flow paths for liquid and air.

Elkay asserts that it did not substantively amend the claim language concerning the structure of the feed tube in its response to the office action and that the focus of its response was on the lack of a reservoir in Krug and Savage. Elkay argues that this clearly demonstrates that

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feed tube arrangement in the accused devices, in which the water feed tube is contained within the air feed tube.

the feed tube structure is not limited to a single passageway for both water and air. This argument is unpersuasive. Arguments made during the prosecution of a patent application are given the same weight as claim amendments. See, e.g., Standard Oil, 774 F.2d at 452, 227 USPQ at 296 ("[The prosecution history includes] all express representations made by or on behalf of the applicant to the examiner to induce a patent grant. . . . Such representations include amendments to the claims and arguments made to convince the examiner. . . ."). Because it is the totality of the prosecution history that must be assessed, not the individual segments of the presentation made to the Patent and Trademark Office by the applicant, it is irrelevant whether Elkay relinquished this potential claim construction in an amendment to the claim or in an argument to overcome or distinguish a reference. It is similarly irrelevant whether Elkay emphasized this argument at the time, or indeed whether Elkay had to relinquish an interpretation of the feed tube limitation that could cover more than one flow path for liquid and air. See Bai v. L & L Wings, Inc., 160 F.3d 1350, 1356, 48 USPQ2d 1674, 1678-79 (Fed. Cir. 1998).

Elkay's argument that its statement distinguishing Krug on the basis of Krug's use of separate feed tubes was insignificant is particularly unpersuasive in view of the Examiner's response to that statement. In the Examiner's Statement of Reasons for Allowance, dated March 30, 1993, the Examiner wrote that he allowed claim 22 (i.e., claim 7 in the '531 patent) because he understood the claim to describe a single feed tube with a single flow path for both liquid and air:

> In regard to claim 22, the prior art of record does not teach a container support with a

> removable mounting means and feed tube as claimed wherein the feed tube has a passage means which both dispenses liquid from the container into the reservoir and admits air from the reservoir into the container. . . . [Beer] feed tube 13 [in Krug] does not provide a means for admitting air. Note that Krug provides a separate conduit for exterior air 27/34 in order to relieve the vacuum in container 6.

Elkay did not respond to this statement.

We conclude that during prosecution Elkay disavowed a potential interpretation of the feed tube limitations in claims 1 and 7 of the '531 patent that would include separate feed tubes or flow paths for liquid and air. Therefore, based on the claim language, the written description and the prosecution history, we hold that "an upstanding feed tube . . . to provide a hygienic flow path for delivering liquid from . . . and admitting air . . . into said container" is properly interpreted to refer to a single feed tube with a single flow path for both liquid and air.

2. The '855 Patent

The relevant portion of claim 1 of the '855 patent is identical to the above-quoted limitation in claim 1 of the '531 patent with the exception that the feed tube in the '531 patent is described as a feed probe in the '855 patent. Compare '531 patent, col. 8, ll. 21-27 with '855 patent, col. 8, ll. 24-31. Hence, we reach the same conclusion regarding the plain meaning of this limitation as we do concerning the feed tube limitation in claim 1 of the '531 patent. In addition, the written description of the '855 patent is essentially identical to that of the '531 patent. We, therefore, again reach the same conclusion as with the '531 patent.

When multiple patents derive from the same initial application, the prosecution history regarding a claim limitation in any patent that has issued applies with equal force to subsequently issued patents that contain the same claim limitation. See Jonsson v. The Stanley Works, 903 F.2d 812, 817-818, 14 USPQ2d 1863, 1868-69 (Fed. Cir. 1990) (holding that when two patents issued from continuation-in-part applications derived from one original application, the prosecution history of a claim limitation in the first patent to issue was properly applied to the same claim limitation in the second patent to issue). The facts in the present case are even more compelling than in Jonsson for applying the prosecution history of the first issued patent to the second issued patent. Here, Elkay added new claims 26-28 during the prosecution of the '639 application, which issued as claims 1-3, respectively, in the '855 patent. In describing the claims, Elkay stated that "[n]ew claim 26 is patterned after a combination of claims 1, 3 and 5 of [the '531 patent] with the "feed tube" changed to --feed probe-- . . . ." By making this statement, Elkay affirmatively linked the meaning of claim 26 of the '639 application to claims 1, 3, and 5 of the '531 patent. Because Elkay's statement put competitors on clear notice of that linkage and because the '531 and '855 patents stem from the same genus, it is proper to consider the prosecution history of claim 1 of the '855 patent to be an amalgam of the prosecution histories of both patents.

Consequently, we hold that Elkay's relinquishment of a potential construction of the feed tube limitation in claim 1 of the '531 patent to include separate feed tubes for liquid and air applies to the feed probe limitation in claim 1 of the '855 patent. Therefore, as with the '531 patent, we conclude that the feed probe limitation in claim

1 of the '855 patent is properly construed as referring to a single feed probe with a single flow path for both liquid and air.

B. Comparing the Construed Claims to the Accused Devices

1. Literal Infringement

The literal infringement issue in this case centers on the feed tube/probe limitation of the asserted independent claims and the relevant structure of Ebco's WaterGuard I, II, and III no-spill adapters. "To prove literal infringement, the patentee must show that the accused device contains every limitation in the asserted claims. If even one limitation is missing or not met as claimed, there is no literal infringement." Mas-Hamilton Group v. LaGard, Inc., 156 F.3d 1206, 1211, 48 USPQ2d 1010, 1014-15 (Fed. Cir. 1998). Judgment as a matter of law of no literal infringement is appropriate if no reasonable fact finder could determine that the accused devices meet every limitation of the properly construed claims. See Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473, 1476, 45 USPQ2d 1498, 1500 (Fed. Cir. 1998).

As we have discussed, the feed tube/probe limitation in the asserted claims is properly construed to refer to a single feed tube/probe with a single flow path for both liquid and air. There is no dispute that the WaterGuard devices use separate feed tubes for water and air. Thus, no reasonable fact finder could determine that the accused devices meet every limitation of the properly construed claims of the '531 and '855 patents. Consequently, we reverse the district court's literal infringement decision and hold that Elkay is entitled to judgment as a matter of law concerning that issue.

2. Doctrine of Equivalents

Judgment as a matter of law of no infringement under the doctrine of equivalents is appropriate if no reasonable fact finder could determine that a claim limitation is met in the accused device by a substantial equivalent. See Gentry Gallery, 134 F.3d at 1476, 45 USPQ2d at 1500. "Arguments and amendments made to secure allowance of a claim, especially those distinguishing prior art, presumably give rise to prosecution history estoppel." Wang Lab., Inc. v. Mitsubishi Elecs., 103 F.3d 1571, 1578, 41 USPQ2d 1263, 1269 (Fed. Cir. 1997) (citation omitted). Prosecution history estoppel prevents operation of the doctrine of equivalents from expanding a claim limitation to include subject matter surrendered during the patent's prosecution. See id.; see also Bai, 160 F.3d at 1354, 48 USPQ2d at 1677.

The prosecution history of the '531 patent shows that Elkay surrendered coverage of a separate feed tube or flow path for liquid and air in claims 1 and 7. Prosecution history estoppel therefore applies to prevent operation of the doctrine of equivalents to extend the coverage of those claims to include a separate feed tube or flow path for liquid and air.

We hold that Elkay's surrender of coverage of a separate feed tube or flow path for liquid and air also applies to the feed probe limitation in claim 1 of the '855 patent, based on the formal relationship between the '531 and '855 patents and Elkay's express connection of claim 1 of the '855 patent to claim 1 of the '531 patent. Consequently, prosecution history estoppel applies to prevent operation of the doctrine of equivalents to extend

the coverage of that claim to include a separate feed probe or flow path for liquid and air.

Because the accused devices use separate feed tubes for air and water, no reasonable fact finder could find that the feed tube/probe limitation in these claims is met equivalently in the accused devices. We therefore reverse the district court's decision and hold that Elkay is entitled to judgment as a matter of law that the WaterGuard I, II, and III no-spill adapters do not infringe the asserted claims of the '531 and '855 patents under the doctrine of equivalents.

CONCLUSION

For the reasons stated above, we reverse the district court's decision and hold that Elkay's accused WaterGuard I, II, and III no-spill adapters do not infringe the asserted claims of Ebco's '531 and '855 patents, either literally or under the doctrine of equivalents.

REVERSED AND VACATED.

COSTS

Each party shall bear its own costs.

United States Court of Appeals for the Federal Circuit

September 17, 1999

ERRATA

Appeal No. 98-1596, 99-1276 Elkay Manufacturing Company v. Ebco Manufacturing Company and Ebtech Corporation

Decided: September 15, 1999 Precedential Opinion

Please make the following changes:

Page 13, line 19: **delete the word** "Elkay" **and replace it with** --Ebco--.

Page 14, line 23: **delete the word** "Elkay" **and replace it with** --Ebco--.

Page 15, line 5: **delete the word** "Elkay's" **and replace it with** --Ebco's--.

Page 15, line 6: **delete the word** "Ebco's" **and replace it with** --Elkay's--.

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
Eastern Division

Elkay Manufacturing Company

JUDGMENT IN A CIVIL CASE

v.

Case Number: 93 C 5106

Ebco Manufacturing Company et al

☐ Jury Verdict. This action came before the Court for a trial by jury. The issues have been tried and the jury rendered its verdict.

☒ Decision by Court. This action came to trial before the Court. The issues have been tried and a decision has been rendered.

IT IS HEREBY ORDERED AND ADJUDGED that for all the foregoing reasons, we find that Elkay has established by a preponderance of the evidence that defendants, Ebco and Ebtech, infringed the asserted claims of the '531 and '855 patents. In additions, we find that Ebco and Ebtech failed to prove by clear and convincing evidence that the asserted patents are invalid and unenforceable. Accordingly, Ebco and Ebtech are ordered to pay the reasonably royalties, lost profits, and prejudgment interest as described in the Memorandum, Opinion and Order. For the period from 8/20/93 to 6/30/97 Elkay is awarded: Reasonable royalties in the amount of $1,704,249.00. Lost profits in the amount of $5,612,837.00. Ebco Manufacturing Company and Ebtech Corporation are also hereby permanently enjoined from

manufacturing, using, selling, and offering for sale its accused WaterGuard I, II, and III no-spill adapters. In order to accommodate Ebco and Ebtech's customers and any orders already in progress, this injunction becomes effective at 12:01 a.m. on 8/1/98. Elkay must file a petition for the reasonable royalties, lost profits, and prejudgment interest accrued from 7/1/97 to 7/10/98 by 8/14/98. It is so ordered.

Michael W. Dobbins, Clerk of Court

Dated: 7/10/1998

Tresa S, Abraham, Deputy Clerk

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

ELKAY MANUFACTURING COMPANY,

Plaintiff,

v.

Hon. Wayne R. Andersen
Case Number: 93 C 5106

EBCO MANUFACTURING COMPANY and
EBTECH CORPORATION,

Defendants.

MEMORANDUM OPINION AND ORDER

This suit is an action for patent infringement involving the two largest water cooler manufactures in the United States. The technology at issue in this lawsuit involves water cooler adapters designed to fit conventional bottled water coolers and to be used with the no-spill caps manufactured and sold by cap manufacturers. For the following reasons, we find that Defendants have infringed the patents-in-suit and that these patents are valid and enforceable.

I. BACKGROUND

Elkay Manufacturing Company ("Elkay") is the plaintiff in this action. Elkay's Cordley-Temprite division manufactures and sells a variety of bottled water coolers and no-spill adapters. The no-spill adapters are sold under the brand name "Water Safe." Elkay owns the two patents-in-suit.

Defendant Ebco Manufacturing Company is the dominant bottled water cooler manufacturer in the United States. Defendant Ebtech Corporation is a joint venture between Ebco Manufacturing Company and Hydotechnology Inc., a company owned by Bruce Burrows ("Burrows"). (Defendants are hereinafter jointly referred to as "Ebco"). Ebco manufactures and markets a no-spill adapter, the accused device, under the brand name "WaterGuard."

Ebco sells the largest number of bottled water coolers in the industry. Elkay's market share is a distant second followed by Sunroc Corporation ("Sunroc"), another bottled water cooler manufacturer.

Elkay and Ebco are virtually the only sources for no-spill adapters in the United States and they directly compete with each other for sales of bottled water coolers and no-spill adapters. (Statement of Undisputed Facts, ¶¶ 14.1- 14.3). Sunroc purchases no-spill adapters from Ebco. Elkay has separately sued Sunroc for infringement. That lawsuit is currently pending in the United States District Court for the Northern District of Illinois.

Although not a primary player in the water cooler industry, the Liqui-Box Corporation ("Liqui-Box") plays a role in the facts and circumstances in this lawsuit. Liqui-Box manufactures liquid dispensing products including plastic molded water bottles and bag-in-box containers and connectors. (Tr. 1436, 1551- 1552). Neither Sunroc nor Liqui-Box are parties to the instant lawsuit.

Spilling is the primary problem connected with the use of conventional bottled water coolers. As the heavy uncapped bottle is lifted and inverted for placement on top of the water cooler cabinet, water often spills. Likewise, when the bottle is removed from the water cooler, any

water remaining in the bottle spills out. Hygiene is another concern. Water may become contaminated when the person placing the bottle on the cooler places his hand over the open end of the bottle. Furthermore, airborne dust, dirt, and other contaminants can enter and accumulate in the water cooler reservoir which is open on top so that air may be drawn through the system. (Statement of Undisputed Facts, ¶¶ 8.4- 8.5). The asserted patents disclose a solution to these recognized problems.

Because Elkay's market share of water cooler sales lagged far behind that of Ebco, Elkay viewed the development of a solution to the spilling and hygiene problems as a means to differentiate and improve its product and, therefore, increase its market share. Thus, Elkay had a strong incentive to develop the invention disclosed in the patents-in-suit. Ultimately, Elkay used its no-spill adapter to dramatically increase its share of the bottled water cooler market.

The asserted Elkay patents disclose "an inverted water bottle or liquid container having a resealable cap and a support for the inverted water bottle and a feed tube or probe for dispensing drinking water or other potable liquid from the inverted container into the reservoir of the bottled water cooler after the resealable cap is opened by the feed tube or probe." (Statement of Undisputed Facts, ¶ 6.1). In sum, the invention provides no-spill bottle installation and removal, a filtered air supply, and a reservoir that is sealed to keep out contaminants.

Henr Baker and his sons, John B. Baker, David H. Baker, a eter K. Baker, (collectively the "Bakers") are named as joint inventors of the patents- in-suit. The Bakers own and operate Crystal Rock Spring Water Co., Inc., a bottled water distributing company in Waterford,

Connecticut. In addition, the Bakers are the principals of Baker Development Company which entered into an agreement on August 8, 1988 with Elkay regarding some of the technology disclosed in the patents-in-suit. Edward H. Donselman "(Donselman"), a project product engineer at Elkay's Cordley-Temprite division is another joint inventor. Ronald C. Katz ("Katz"), Elkay's Chairman of the Board, is also a joint inventor. (Statement of Undisputed Facts, ¶¶ 7.1-7.3).

In October 1988, Elkay displayed several prototype Water Safe adapters at the International Bottled Water Association trade show in Atlanta, Georgia. Elkay launched commercial sales of its Water Safe product in late 1990. Ebco began selling its WaterGuard product in 1992. Burrows designed the WaterGuard devices. Elkay's patent number 5,222,531 (the " '531 patent") and patent number 5,289,855 (the " '855 patent") issued on June 29, 1993 and March 2, 1994 respectively.

Elkay alleges that Ebco directly and literally infringes claims 1-5 and 7-10 of Elkay's '531 patent and claims 1-3 of Elkay's '855 patent through Ebco's manufacture, use, sale, and offering for sale of the WaterGuard no-spill adapters. Alternatively, Elkay contends that the accused adapters infringe these claims under the doctrine of equivalents. Elkay seeks money damages and injunctive relief.

Ebco denies that its no-spill adapters infringe the patents-in-suit and seeks a declaration that these patents are invalid, unenforceable, and not infringed. Specifically, Ebco charges that the patents-in-suit are invalid because: (11) Elkay failed to name the proper inventors; (2) the '531 and '855 patents are anticipated by a prior work; and (3) the invention is obvious in view of the prior art.

Additionally, Ebco claims that the patents-in-suit are unenforceable because Elkay engaged in inequitable conduct during the patent prosecution process.

This Court conducted a 29 day bench trial. At the beginning of the trial, Elkay dismissed with prejudice its claims based on its 5,295,519 and 5,289,854 patents. In turn, Ebco dismissed its declaratory judgment counterclaims on these patents without prejudice. The parties submitted post- trial briefs and this Court heard closing arguments. This Memorandum Order and Opinion presents the Court's findings of fact and conclusions of law with respect to all issues necessary to resolve this dispute.

II. THE PATENT CLAIMS AT ISSUE

Patent No. 5,222,531

1. A liquid container support and hygienic delivery system for dispensing drinking water or other potable liquid to a predetermined maximum liquid level in a dischargeable reservoir open at its upper end and housed within a cabinet from an inverted unpressurized container having an internal liquid confining surface defined by a substantially rigid, generally cylindrical body with a radially inwardly directed downwardly sloping shoulder portion merging into a generally cylindrical depending neck defining an opening closed by a coaxial cap circumferentially surrounding at least an outer axial portion of said neck and having an internal recess therein including a hollow tubular sleeve portion and a sealing plug portion defining a closed end with a central cavity having internal gripping means therein connected thereto, comprising, in combination,

removable mounting means adapted to fit on the upper portion of said cabinet and defining an annular

ring for supporting said sloping shoulder portion of said inverted container thereon, said removable mounting means also defining a tapered entry portion having a substantially closed inner wall extending downwardly and inwardly from said annular ring for receiving said depending container neck and said coaxial cap therein, said entry portion having a substantially closed bottom end and a length greater than that of said depending container neck and said coaxial cap when said inverted container shoulder portion is supported on said annular ring,

sealing means carried by said removable mounting means for sealingly closing said open upper end of said reservoir,

an upstanding feed tube dimensioned to penetrate into said hollow tubular sleeve portion of said coaxial cap and said container neck to provide a hygienic flow path for delivering liquid from said inverted unpressurized container into said reservoir to said predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container to displace the liquid delivered therefrom, said feed tube having upper and lower end portions, means carried by said removable mounting means for rigidly supporting said upstanding feed tube with said upper end projecting upwardly from said bottom end of said entry portion and said lower end depending downwardly from said bottom end of said entry portion of said removable mounting means into said reservoir to define said predetermined maximum liquid level,

said upper end of said feed tube having a length greater than said recess in said coaxial cap and being disposed and adapted for entry into said recess to axially

separate said cap plug portion from said hollow tubular sleeve portion when said container is inverted and lowered onto said mounting means with said sloping shoulder portion of said inverted container supported by said annular ring in order to permit the discharge of liquid from said container into said reservoir to said predetermined maximum liquid level and admission of air from said reservoir above said liquid and into said container,

and said upstanding feed tube being disposed and dimensioned to hold said cap plug portion free of contact with said hollow tubular sleeve portion of said coaxial cap and said internal liquid confining surface of said inverted container when said sloping shoulder portion is supported on said annular ring of said mounting means.

2. A system as defined in claim 1 wherein said feed tube includes an internal bore and a radial inlet communicating therewith, said inlet being spaced from the tip end of said feed tube by a distance greater than the internal depth of said internal cavity of said plug portion of said coaxial cap.

3. A system as defined in claim 1 wherein said upper end of said feed tube is formed with complementary external gripping means for securing said plug on said feed tube when said feed tube is inserted in said recess of said coaxial cap and said plug portion is axially separated from said hollow tubular sleeve portion.

4. A system as defined in claim 3 wherein said internal gripping means includes a radially inwardly projecting annular lip formed in said plug cavity and said external gripping means includes an annular groove

formed in said tip portion of said upper end of said feed tube.

5. A system as defined in claim 1 wherein said plug portion is dimensioned to sealingly interfit with said hollow tubular sleeve portion when said inverted container is lifted off said support ring and said feed tube is withdrawn from said recess of said coaxial cap.

7. A liquid container support and hygienic delivery system for dispensing drinking water or other potable liquid to a predetermined maximum liquid level in a dischargeable reservoir open at its upper end and housed within a cabinet from an inverted unpressurized container having a substantially rigid body with a radially inwardly directed downwardly sloping shoulder portion merging into a generally cylindrical depending neck defining an opening closed by a coaxial cap circumferentially surrounding at least an axial outer portion of said neck and having an internal recess therein including a hollow tubular sleeve portion and a sealing plug portion defining a closed end with a central cavity having internal gripping means therein connected thereto, comprising, in combination,

removable mounting means adapted to fit on the upper portion of said cabinet and defining an annular ring for supporting said sloping shoulder portion of said inverted container thereon, said removable mounting means also defining a tapered entry portion extending downwardly and inwardly from said annular ring for receiving said depending container neck and said coaxial cap therein, said entry portion having a substantially closed bottom end and a length greater than that of said depending container neck and said coaxial cap when said

inverted container shoulder portion is supported on said annular ring,

an elongated feed tube having a tip end, a substantially hollow tubular body portion and a base portion including support means for orienting said feed tube substantially vertically in said tapered entry portion with said tip end pointed upwardly for admitting air into and dispensing drinking water or other potable liquid from within said inverted substantially rigid unpressurized container,

said feed tube body portion being dimensioned for close fitting sealing relation with the inside diameter of said internal cap recess to prevent leakage there between when said feed tube is inserted into and through said recess,

said hollow feed tube having an internal bore and at least one radial opening communicating therewith, said radial opening being spaced from said tip end of said feed tube by a distance that is greater than the internal depth of said plug cavity, said radial opening and said bore defining fluid passage means for dispensing liquid from said container into said reservoir up to said predetermined liquid level and for admitting air from said reservoir above said liquid level into said container to displace said dispensed liquid and

said fluid passage means being unobstructed by internally or externally disposed valving to permit the free flow of liquid and air therethrough.

8. A liquid container support and hygienic liquid dispensing system as defined in claim 7 wherein said feed tube tip end has a reduced cross sectional diameter for insertion into said plug cavity and said tip end has complementary external gripping means for cooperating

with said internal gripping means in said plug cavity for securing said plug on said feed tube tip when said feed tube is inserted into and through said internal recess of said coaxial cap.

9. A liquid container support and hygienic liquid dispensing system as defined in claim 8 wherein said internal gripping means includes a radially inwardly projecting annular lip formed in said plug cavity and said external gripping means includes an annular groove formed in the tip portion of said feed tube.

10. A liquid container support and hygienic liquid dispensing system as defined in claim 9 wherein said feed tube tip is formed with a tapered annular ramp portion adjacent said groove for guiding said inwardly projecting annular lip in said plug cavity into said annular groove.

Patent No. 5,289,855

1. A liquid container support and hygienic delivery system for dispensing drinking water or other potable liquid to a predetermined maximum liquid level in a dischargeable reservoir open at its upper end and housed within a cabinet from an inverted unpressurized container having an internal liquid confining surface defined by a substantially rigid, generally cylindrical body with a radially inwardly directed downwardly sloping shoulder portion merging into a generally cylindrical depending neck defining an opening closed by a coaxial cap circumferentially surrounding at least an outer axial portion of said neck and having an internal recess therein including a hollow tubular sleeve portion and a plug and recess sealing portion connected thereto and defining a closed end with a central cavity having

internal gripping means therein comprising, in combination,

removable mounting means adapted to fit on the upper portion of said cabinet and defining an annular ring for supporting said sloping shoulder portion of said inverted container thereon, said removable mounting means also defining a tapered entry portion having a substantially closed inner wall extending downwardly and inwardly from said annular ring for receiving said depending container neck and said coaxial cap therein, said entry portion having a substantially closed bottom end and a length greater than that of said depending container neck and said coaxial cap when said inverted container shoulder portion is supported on said annular ring.

sealing means carried by said removable mounting means for sealingly closing said open upper end of said reservoir,

an upstanding feed probe dimensioned to penetrate into said hollow tubular sleeve portion of said coaxial cap and said container neck to provide a hygienic flow path for delivering liquid from said inverted unpressurized container into said reservoir to said predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container to displace the liquid delivered therefrom, said feed probe having upper and lower end portions,

means carried by said removable mounting means for rigidly supporting said upstanding feed probe with said upper end projecting upwardly from said bottom end of said entry portion and means depending downwardly from said bottom end of said entry portion

of said removable mounting means into said reservoir to define said predetermined maximum liquid level,

said upper end of said feed probe having a length greater than said recess in said coaxial cap and a tip portion disposed and dimensioned for entry into said recess to axially separate said cap plug and recess sealing portion from said hollow tubular sleeve portion when said container is inverted and lowered onto said mounting means with said sloping shoulder portion of said inverted container supported by said annular ring in order to permit the discharge of liquid from said container into said reservoir to said predetermined maximum liquid level and admission of air from said reservoir above said liquid and into said container,

said tip portion of said upstanding feed probe being formed with complementary external gripping means disposed and dimensioned for securing said plug and recess sealing portion on said feed probe and for holding said plug and recess sealing portion free of contact with said internal liquid confining surface of said inverted container when said feed probe is inserted in said recess of said coaxial cap to axially separate said plug and recess sealing portion from said hollow tubular sleeve portion when said sloping shoulder portion of said inverted container is supported on said annular ring of said mounting means, and said upstanding feed probe being dimensioned and disposed to draw said plug and recess sealing portion into interfitting sealing relation with said hollow tubular sleeve portion when said inverted container is lifted off said support ring and said feed probe is withdrawn from said recess of said coaxial cap.

2. A system as defined in claim 1 wherein said internal gripping means includes at least one radially inwardly projecting lip portion formed in said plug cavity and said external gripping means includes an annular groove formed in said tip portion of said upper end of said upstanding feed probe.

3. A system as defined in claim 2 wherein said feed probe tip portion is formed with a tapered annular ramp portion adjacent said annular groove for guiding said inwardly projecting lip portion in said plug cavity into said annular groove.

III. FINDINGS OF FACT AND CONCLUSIONS OF LAW

A. Infringement

Pursuant to 35 U.S.C. § 271(a), "whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefore, infringes the patent." The infringement determination requires a two step analysis. Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473, 1476 (7th Cir.1998). First, as a matter of law, the court must construe the asserted claims to determine their scope and meaning. Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed.Cir.1995), aff'd, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1986). Second, as a matter of fact, the fact finder must determine whether the defendant's allegedly infringing activity falls within the scope of the claims as construed. Markman v. Westview Instruments, Inc., 517 U.S. 370, 371, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). To succeed, the plaintiff must demonstrate by a preponderance of the evidence that the

accused structure meets every limitation of a claim either exactly or by an equivalent. Kahn v. Gen. Motors Corp., 135 F.3d 1472, 1476 (Fed.Cir.1998); Engel Indus., Inc. v. Lockformer Co., 96 F.3d 1398, 1405 (Fed.Cir.1996).

1. Markman Ruling

A patent is a government grant of rights which permits the patentee to exclude others from making, using, or selling the invention as claimed. 35 U.S.C. § 154. Therefore, a patent must describe the exact scope of an invention in order to define the limits of the patentee's rights and "apprise the public of what is still open to them." Markman, 517 U.S. at 373 (quoting McClain v. Ortmayer, 141 U.S. 419, 424, 12 S.Ct. 76, 35 L.Ed. 800 (1891)). To accomplish these objectives, a patent document contains two distinct elements. The first is a specification which describes the invention "in such full, clear, concise, and exact terms as to enable any person skilled in the art ... to make and use the same." 35 U.S.C. § 112. The second element is "one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." Id.; see also Markman, 517 U .S. at 373-74 (stating, "[t]he claim define[s] the scope of a patent grant and functions to forbid not only exact copies of an invention, but products that go to the heart of the invention but avoid literal infringement by making a noncritical change") (internal quotations and citations omitted).

Before resolving the issue of infringement, the court must determine the scope of the claims of the patent as a matter of law. Markman, 52 F.3d at 979. In light of Markman, the Federal Circuit has cautioned trial judges that:

> [i]t may well be that in some cases one side will offer the correct interpretation to the judge. More often, however, it is likely that the adversaries will offer claim interpretations arguably consistent with the claims, the specification, and the prosecution history that produce victory for their side. In any event, the judge's task is not to decide which of the adversaries is correct. Instead the judge must independently assess the claims, the specification, and if necessary, the prosecution history, and relevant extrinsic evidence and declare the meaning of the claims.

Exxon Chem. Patents, Inc. v. Lubrizol Corp., 64 F.3d 1553, 1556 (Fed.Cir.1995), reh'g en banc denied, 77 F.3d 450 (Fed.Cir.), cert. denied, 518 U.S. 1020, 116 S.Ct. 2554, 135 L.Ed.2d 1073 (1996).

To interpret the claims, the court must first examine the relevant intrinsic evidence, namely the patent itself, including the language of the claims and specifications, and the prosecution history. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996); Markman, 52 F.3d at 979. Typically, the court will need to look no further than the available intrinsic evidence to resolve an ambiguity in a disputed term. See Vitronics, 90 F.3d at 1582. If the intrinsic evidence "unambiguously describe[s] the scope of the patented invention, reliance on extrinsic evidence is improper." Id. at 1584; Markman, 53 F.3d at 981. E.g., Applied Telematics, Inc. v. Sprint Communications Co., Inc., No. Civ. A. 94-CV-4603, 1996 WL 421920 (E.D.Pa. Jan.5, 1996), aff'd in part and vacated in part on other grounds, 101 F.3d 716 (Fed.Cir.1996). Extrinsic evidence is that evidence which is external to the patent and file history including, but not

limited to, expert testimony, inventor testimony, dictionaries, technical treatises and articles, and prior art not cited in the prosecution history. Vitronics, 90 F.3d at 1584.

By construing the patent claims, the court defines the federal legal rights created by the patent document. Markman, 52 F.3d at 978. Because it is the claims and not the specifications, that are subject to infringement, Bradshaw v. Igloo Prod. Corp., 912 F.Supp. 1088, 1095 (N.D.Ill.1996), courts must neither narrow nor broaden the scope of a claim to give the patentee something different than what he has set forth. E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 1433 (Fed.Cir.), cert. denied, 488 U.S. 986, 109 S.Ct. 542, 102 L.Ed.2d 572 (1988). Unless the patentee chooses to be his own lexicographer and states her special definition in the patent specification or file history, words in a claim are given their ordinary and customary meaning. Vitronics Corp., 90 F.3d at 1582.

With these rules in mind, we now turn to the disputed claim language. The parties raise no issue regarding the interpretation of any terms or language in the patents. Rather, the parties dispute only the scope of the preamble language.

An independent claim stands on its own and does not refer to any other claim in the patent. It must therefore be read separately when determining its scope. A dependent claim includes a reference to at least one other claim in the patent and must be interpreted to encompass each of its own elements as well as any additional elements recited in the referenced claim. Lampi Corp. v. American Power Prod., No. 93 C 6762, 1997 WL 392239,*1 (N.D.Ill. July 8, 1997). Claims 1 and 7 of the

'531 patent and claim 1 of the '855 patent are independent claims and claims 2-5 and 8-10 of the '531 patent and claims 2-3 of the '855 patent are dependent.

The independent claims of the patents asserted here are written in the combination claim format and include a preamble, a transitional phrase, i.e., "comprising in combination," and a body setting forth the elements of the claimed combination. Ebco argues that the preamble language of the asserted independent claims requires a "coaxial cap" and "container" which are absent from its accused device. Elkay contends that the preamble language merely defines the field of relevant prior art and the scope of the claimed invention.

Pursuant to the parties' agreement, we resolved the Markman issue on the paper record without a hearing. On July 3, 1997, we issued a minute order finding that the preamble language did not limit the scope of the asserted claims and that the preamble limitations did not become elements of the claimed combination. We now set forth more fully our reasoning.

Preamble recitations do not limit the scope of the claim if the language merely states a purpose or intended use of the invention. In re Paulsen, 30 F.3d 1475, 1478 (Fed.Cir.1994). Moreover, preamble limitations may give life, meaning, and vitality to the claims without becoming elements of the claimed combination. See Williams Mfg. Co. v. United Shoe Mach. Corp., 316 U.S. 364, 368, 62 S.Ct. 1179, 86 L.Ed. 1537 (1942). Accordingly, the patentee "may define and limit an invention in terms of that invention's intended environment without claiming the environment as part of a combination with the invention ." Smith Corona Corp. v. Pelikan, Inc., 784 F.Supp. 452, 463 (M.D.Tenn.1992), aff'd, 1 F.3d 1252 (Fed.Cir.1993).

Accord In re Stencel, 828 F.2d 751, 754-755 (Fed.Cir.1987) (stating that structural recitations in the preamble may limit the claimed elements but are not necessarily elements of the claimed combination).

Here, the pertinent preamble language recites a bottled water delivery system which includes a container with a sloping shoulder portion and a coaxial cap with a plug portion. ('531 patent, claim 1, col. 7, l. 55--col. 8, l. 2 and claim 7, col. 9, ll. 19-33; '855 patent, claim 1, col. 7, l. 58--col. 9, l. 6). The limitations recited in the preambles to the asserted claims, however, are not structural elements of the claimed combination and function only to identify the context and environment in which the claimed combination interact. See e.g. Smith Corona Corp., 784 F.Supp. at 452 (finding that the asserted claims "do not claim all typewriter ink ribbon cassettes broadly, but ink ribbon cassettes designed to function in the described environment of compatible correction cassettes and typewriter switches). Indeed, it would be difficult to describe an improvement to a bottled water delivery system without naming such a system as the thing to which the patent is addressed and equally difficult to refrain from referring to various parts of the system, such as the liquid container or the cap. See Williams Mfg. Co., 316 U.S. at 369. Therefore, the "coaxial cap" and "container" recited in the preamble to the asserted claims are not elements of the claimed combination. Accordingly, the structures recited in the preamble language do not have to be present in the accused device for that device to infringe the claimed invention.

This conclusion is further supported by the prosecution history of the asserted patents. The prosecution history "cannot 'enlarge, diminish, or vary' the

limitations in the claims." Markman, 52 F.3d at 980 (citation omitted). The prosecution history only "limits the interpretation of the claim terms so as to exclude any interpretation that was disclaimed during prosecution." Southwall Tech., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576 (Fed.Cir.), cert. denied, 516 U.S. 987, 116 S.Ct. 515, 133 L.Ed.2d 424 (1995).

The '531 patent is a continuation of Application Serial No. 684,642 which issued as patent number 5,121,778 (the " '778 patent"). During the prosecution of the '531 patent, Elkay submitted new independent claims 16 and 22 which issued as claims 1 and 7 of the '531 patent. The preamble of claims 16 and 22 were patterned after the preamble of claim 1 of the '778 patent with additions including a more detailed description of the liquid container and cap. Based on the additions, the Examiner stated that "in the base claims 16 and 22 the container cap and plug portion is clearly not part of the claimed combination." (JTX 1, Paper No. 4, p. 3).

Ebco further argues that the specifications establish that the asserted invention is not the adapter alone but rather a "system" which achieves its objectives through the interrelationship of the inverted water bottle, the coaxial cap, the feed tube of the adapter, and the annular support ring. We disagree.

Even though the specifications and drawing disclose a bottled water delivery system, the claims of the '531 and '855 patents are directed to the elements of the adapter, the supporting means and the specially designed feed tube which interact with a particular type of cap. Although the claims must be read in light of the specifications, Markman, 52 F.3d at 979, it is the claims, and not the specifications, that define the invention. Ortho

Pharm. Corp. v. Smith, 959 F.2d 936, 943 (Fed.Cir.1992). The specification, however, cannot limit or enlarge the claims. Markman, 52 F.3d at 980. Thus, "simply because 'claims are interpreted in light of the specification does not mean that everything expressed in the specification must be read into all the claims.' In addition, references to a preferred embodiment, such as those in the specifications or drawings, are not claim limitations." C & F Packing Co., Inc. v. IBP, Inc., 916 F.Supp. 735, 743 (N.D.Ill.1995). Accordingly, we find that the specifications in the '531 and '855 patents do not require that the cap and container become part of the claimed combination.

In sum, after reviewing the asserted claims, the specifications, and the prosecution histories, the Court interprets the asserted claims as follows. The preamble language merely defines the field of relevant prior art and the scope of the claimed invention. Specifically, the "coaxial cap" and "container" recited in the preambles to the asserted claims are not elements of the claimed combination. The claims of the asserted patents are directed to different inventive aspects of the adapter for use on the commonly disclosed system found in the preamble. Thus, to infringe Ebco need not produce or sell the coaxial cap and the container.

2. Literal Infringement

Based on the evidence presented at trial, we find that each and every element recited in the asserted claims of the '531 and '855 patents finds direct and literal response in the accused WaterGuard I, II and III no-spill adapters.

To establish literal infringement, a plaintiff must demonstrate that every limitation in the claim is literally

met by the accused device. Rohm and Haas Co. v. Brotech Corp., 127 F.3d 1089, 1091 (Fed.Cir.1997); Kahn v. General Motors Corp., 135 F.3d 1472, 1477 (Fed.Cir.1998). This determination is question of fact that must be proved by a preponderance of the evidence. Id. Ebco cannot avoid infringement by merely adding additional elements to its accused device if each element recited in the claims is found in the accused WaterGuard adapters. See Stiftung v. Renishaw PLC, 945 F.2d 1173, 1178 (Fed.Cir.1991); A.B. Dick Co. v. Burroughs Corp., 713 F.2d 700, 703 (Fed.Cir.1983), cert. denied, 464 U.S. 1042, 104 S.Ct. 707, 79 L.Ed.2d 171 (1984). "For example, a pencil structurally infringing a patent claim would not become noninfringing when incorporated into a complex machine that limits or controls what the pencil can write. Neither would infringement be negated simply because the patentee failed to contemplate the use of the pencil in that environment." Id. Moreover, "if structural claims were to be limited to devices operated as a specification-described embodiment is operated, there would be no need for claims." SRI Int'l v. Matsushita Elec. Corp. of America, 775 F.2d 1107, 1121 (Fed.Cir.1985). Accord Markman, 52 F.3d at 980 (noting that specifications "do not delimit the right to exclude"). Thus, whether the accused WaterGuard devices contain one or more features in addition to those recited in the asserted claims is irrelevant to the infringement determination.

There is no genuine dispute that the accused adapters contain most of the elements of each of the claims at issue and, based on the evidence presented at trial, we agree. The infringement controversy centers around three issues: (1) the feed tube or feed probe, (2) the removable

mounting means, and (3) the Blackhawk Molding Company's two-piece cap.

To support literal infringement, Elkay presented its technical expert Mr. Louis T. Sands ("Sands"). Over the last twenty years, Sands has performed consulting work for bottled water, drinking water, and pure water companies, governments, and individuals worldwide. (Tr. 187). Using a computer monitor, Sands displayed the language of the asserted claims on one half of the monitor while the other half of the monitor displayed the relevant portion of the accused WaterSafe adapters. As he testified, Sands read each line of the asserted claims and used a light pen and color coding to demonstrate how the corresponding structure and/or relationship was found in the accused adapters. (PTX 174-200B). Hard copies of Sands' drawing were then printed out for the parties and the Court. In this manner, Sands compared each line of the claim language to the structure of the accused adapters and concluded that Ebco's WaterGuard adapters meet every limitation in the asserted claims and, thus, literally and directly infringe the asserted claims. We found Sands to be a highly credible, knowledgeable witness and consider his testimony highly probative and persuasive. Accordingly, we adopt the reasoning and analysis found in Sand's testimony and accompanying exhibits. The relevant claims charts showing how the Ebco devices correspond to the asserted claims are as follows:

'531 PATENT			'855 PATENT	
CLAIM	PTX		CLAIM	PTX
1	174-180		1	198, 198A-E, 199, 200
2	181		2	200A
3	182-183		3	200B
4	184-185			
5	186-187			
7	188-193			
8	194-195			
9	196			
10				

a. Feed Tube/Feed Probe

Claim 1 of the '531 patent, col. 8, ll. 21-29, specifies, "an upstanding feed tube dimensioned to penetrate into said hollow tubular sleeve portion of said coaxial cap and said container neck to provide a hygienic path for delivering liquid from said inverted unpressurized container into said reservoir to said predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container to displace the liquid delivered therefrom, said feed tube having upper and lower end portions." (Emphasis added). The '855 patent contains the same limitation but substitutes the term "feed probe" for "feed tube." ('855 patent, col. 8, ll. 24-34). Claim 7 of the '531 patent, col. 9, l. 47-col. 10, l. 6, recites, "an elongated feed tube having a tip end, a substantially hollow tubular body portion and a base portion including support means for orienting said feed tube substantially vertically in said tapered entry portion with said tip end pointed upwardly for admitting air into

and dispensing drinking water or other potable liquid from within said inverted substantially rigid unpressurized container." (Emphasis added).

Ebco argues that the trial record "clearly establishes" that the feed tube or feed probe on the accused adapters is structurally and functionally different from the feed tube or probe claimed and described in the '531 and '855 patents. (Ebco's Response to Elkay's Brief, p. 7). More specifically, Ebco contends that the asserted patents "claim, describe and illustrate a feed tube or probe having a single flow path for passage of both water and air. In contrast, the accused WaterGuard adapters have a feed tube or probe with two separate flow paths for separated and simultaneous passage of water and air." (Id. at pp. 7-8, emphasis supplied). Notwithstanding Ebco's contention, we find that the evidence presented at trial establishes by a preponderance of the evidence that the language of the asserted claims reads literally on the accused adapters and specifically on their feed tubes or probes.

Initially, we note that Ebco did not contest the meaning or interpretation of the terms "feed tube," "feed probe," or "path" recited in the asserted claims during the Markman claim interpretation stage of this litigation. Thus, we will afford these terms their ordinary and customary meaning. Vitronics Corp., 90 F.3d at 1582. We will not, as Ebco urges, interpret the relevant terms more narrowly or more restrictively than usual. The pertinent claim language uses the article "an" to delineate one feed tube or probe. "An" does not qualify or limit the path through which the air and water pass. Moreover, claim 7 of the '855 patent does not use the language "a hygienic flow path" relied upon by Ebco. We find that the asserted claim language does not preclude a separation of the air

and water flow or otherwise require the intermingling of air and water within the feed tube. Thus, the pertinent claim language reads on feed tubes or probes having single, dual, or separate passages for air and water flow.

Ebco's accused adapter has an inner tube located concentrically within the WaterGuard feed tube or probe. The inner tube enhances the flow of air and water through the tube and reduces "glugging" as the water is dispensed. This improvement, however, does not undermine the conclusion that Ebco's adapters infringe the asserted patents. Because the path for water and air is contained within one upstanding and elongated feed tube or feed probe as required by the asserted claims, the inclusion of the additional inner tube does not avoid infringement. See Stiftung, 945 F.2d at 1178-79; Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1057-58 (Fed.Cir.), cert. denied, 488 U.S. 825, 109 S.Ct. 75, 102 L.Ed.2d 51 (1988). Whether Ebco's feed tube/feed probe is classified as having a single or dual chamber, the inner tube is simply an additional component added inside the feed tube and it does not allow Ebco to avoid infringement.

Ebco's citation to the specifications and prosecution history of the '531 and '855 patents are unpersuasive. The claims, not the specifications, are subject to infringement. Markman, 52 F.3d at 980 (stating "simply because 'claims are interpreted in light of the specification does not mean that everything expressed in the specification must be read into all the claims" ') (internal citation omitted). Similarly, the prosecution history cannot diminish or vary the limitations of the claims. Id.; Southwall Tech., Inc., 54 F.3d at 1576. Therefore, Ebco's accused adapters contain the feed tube or probe recited in the asserted claims.

b. Removable Mounting Means

Each of the independent claims of the '531 and '855 patents recite as a claimed element, "removable mounting means adapted to fit on the upper portion of said cabinet ...." ('531 patent, claim 1, col. 8, ll. 3-4 and claim 7, col. 9, ll. 34-35; '855 patent, claim 1, col. 8, ll. 7-8). Moreover, the invention defined by the asserted claims is consonant with the stated patent objective of "retrofitting exiting water coolers," '531 patent, col. 2, ll. 3-5; '855 patent, col. 2, ll. 4-6, with an adapter which provides a liquid container support and no-spill hygienic delivery system with a re-seal feature.

Ebco contends that the claims require a removable mounting means that is "supported" on the upper portion of the cabinet instead of being "supported" on the reservoir. Accordingly, Ebco assets that its WaterGuard II and III adapters do not infringe the asserted claims when mounted on its model RR and SR coolers because its adapters are "supported" by the top of the removable reservoir not the top cover of the cabinet as required in the claim language. We disagree with Ebco's assertion.

Again, we note that Ebco raised no issue as to the interpretation of the terms of the asserted claims and we will not now read these claims in a special or restrictive manner. See Vitronics Corp., 90 F.3d at 1582. Thus, as long as the structure of the accused device has the capability of functioning in the manner described by the claims, i.e., the adapter is capable of being adapted to fit on the upper portion of the cabinet, Ebco's adapters infringe the asserted claims. See Intel Corp. v. Int'l Trade Comm'n, 946 F.2d 821, 832 (Fed.Cir.1991); Cyrix Corp. v. Intel Corp., 846 F.Supp. 522, 536 (E.D.Tex.1994), aff'd, 42 F.3d 1411 (Fed.Cir.1995).

We find that the pertinent claim language imparts a structural limitation that the removable mounting means be structured or dimensioned so that it is capable of being adapted to fit on the upper portion of the cabinet. See Sealed Air Corp. v. Int'l Packaging Sys., No. Civ. A. 86-0365-R. 1987 WL 44350,*16 (E.D.Va. July 24, 1987) (finding, "the word 'adapted' is used to indicate that the arrangement is capable of holding material into the reservoir"); In re Venezia, 530 F.2d 956, 959 (C.C.P.A.1976). The claims do not require that the removable mounting means rest on or be supported by the upper portion of the cabinet. Indeed, none of the asserted claims specify or contain any limiting language defining how the removable mounting means itself is supported on the upper cabinet. Whether the WaterGuard II and III adapters are supported by the top rim of the removable reservoir, the top portion of the cabinet of the RR and SR coolers, or both is immaterial. Ultimately, it is the lower portion of the cabinet that "supports" both the removable reservoir and the upper portion of the cabinet. Thus, any distinction based on "support" fails. The key inquiry is whether the accused adapters are capable of fitting on the upper portion of the cabinet. We find that they are.

At trial, Katz and Sands both demonstrated and testified that Ebco's WaterGuard II and III adapters are designed to be removably mounted on the top cover or lid of Ebco's Oasis water cooler. (Tr. 22-26, 133, 225-26; PDX 339, 353-2 of 3, 353-3 of 3). In addition, Katz explained and demonstrated how a WaterGuard II adapter, with the addition of a stiffener ring above the reservoir seal and a spacer ring under the adapter flange, is adapted to fit on the upper portion of an Ebtech Model SR water cooler. (Tr. 133; PDX 338, 354-1 of 3, 354-2 of 3). Sands

also testified that a WaterGuard III could be installed on the upper portion of an Ebtech SR model water cooler with the addition of an expander or follower ring above the reservoir seal. (Tr. 242- 244; PDX 318, 338).

Plaintiff's Trial Exhibits PTX 17, PTX 10; and PTX 9 contain cross-sectional views of a WaterGuard I, II and III adapter, respectively, installed on a conventional Ebco Oasis water cooler. Significantly, Ebco admits that its adapters are "usable with existing coolers of different manufacturers." (Ebco's Post Trial Brief on Invalidity and Unenforcability, p. 4 n. 6).

In sum, we find that the accused adapters constitute the requisite "removable mounting means" and are capable of fitting on the upper portion of the cabinet. Therefore, for the foregoing reasons we find that the asserted claims read on the accused adapters regardless of how they are supported on the upper portion of the cabinet.

c. Blackhawk Molding Company Two-Piece Cap

The preambles to the asserted claims require a specified type of "coaxial cap." ('531 patent, claim 1, col. 7, l. 65-col. 8, l. 2, and claim 7 col. 9, ll. 27-33 and '855 patent, claim 1, col. 7, l. 67 to col. 8, l. 5). At trial, Ebco argued that the two-piece cap made by Blackhawk Molding Company does not respond to the literal language of claim 5 of the '531 patent. It is irrelevant to the question of Ebco's infringement whether Blackhawk Molding Company's two- piece cap or any other cap meets the literal language of the asserted claims. The "cap" is recited in the preambles and, therefore, the cap is not an essential element of the combination defined in the asserted claims. See supra § III, A, l. So long as Ebco's accused adapters are capable of functioning with any of the available

no-spill caps in the manner defined by the claims, and we have already found that they are, the adapters infringe the asserted patents. See Intel Corp., 946 F.2d at 832; Sealed Air Corp., 1987 WL 44350 at *16. Accordingly, Ebco's manufacture, use, sale, and offer for sale of the accused adapters constitutes infringement regardless of whether Ebco's customers use the WaterGuard adapters with a particular no-spill cap.

d. Conclusion on Literal Infringement

Based on the foregoing, we find that Elkay has demonstrated by a preponderance of the evidence that Ebco's WaterGuard adapters meet every claim element of each of the asserted claims. Accordingly, we find that the accused Ebco WaterGuard adapter directly and literally infringe the '531 and '855 patents.

3. Doctrine of Equivalents

An accused product may still infringe even if literal infringement does not exist. Under the doctrine of equivalents, a patentee is protected from competitors who "make unimportant and insubstantial changes and substitutions to a patent which, though adding nothing, would be enough to take the copied matter outside the claim" thereby depriving the patentee of the benefit of her invention. Graver Tank & Mfg. Co., Inc. v. Linde Air Prod. Co., 339 U.S. 605, 607-608, 70 S.Ct. 854, 94 L.Ed. 1097 (1950). Recently, in Warner- Jenkinson Co., Inc. v. Hilton Davis Chem. Co., 520 U.S. 17, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997), the United States Supreme Court clarified the doctrine of equivalents. The Court held that the infringement determination under the doctrine of equivalents is an objective inquiry made on an

element-by-element basis. Id. at 1054. Accordingly, the essential inquiry is whether "the accused product or process contain elements identical or equivalent to each claimed element of the patented invention." Id. Under this analytical framework, a patentee must prove, by a preponderance of the evidence, either that the substituted element in the accused device performs substantially the same function in substantially the same way to produce substantially the same result as the element at issue or that insubstantial differences exist between the substitute element and the claimed element. Id.; Multiform Desiccants, Inc. v. Medzan, Ltd., 133 F.3d 1473, 1480 (Fed.Cir.1998). "In other words, if a claim limitation must play a role in the context of the specific claim language, then an accused device which cannot play that role, or which plays a substantially different role, cannot infringe under the doctrine of equivalents." Vehicular Tech. Corp. v. Titan Wheel Int'l, Inc., 141 F.3d 1084, 1090 (Fed.Cir.1998).

Evidence of copying by the accused infringer is relevant to the doctrine of equivalents analysis. Hilton Davis Chem. Co., 62 F.2d at 1519. Copying suggests that the differences between the claimed invention and the accused product are objectively insubstantial. Id. Evidence of "designing around" the patent claims is also relevant. Roton Barrier, Inc. v. Stanley Works, 79 F.3d 1112, 1126 (Fed.Cir.1996). The accused infringer's subjective awareness, motive, or intent is not relevant to the equivalency determination. Hilton Davis Chem. Co., 62 F.2d at 1519.

Strictly speaking, the doctrine of equivalents is inapplicable to the infringement issue because we have already determined that the accused adapter literally

infringes the '531 and '855 patents. In the interests of providing a clear record, however, we will address the question of whether the accused adapter's dual chamber feed tube or probe is equivalent to the claimed feed tube or probe.

We find that Sands' testimony that Ebco's adapters infringe the asserted claims under the doctrine of equivalents is highly probative and credible. (Tr. 320-21; PTX 29). Ebco's feed tube or probe delivers water from the inverted bottle into a reservoir while admitting replacement air from the reservoir into the bottle as required by the asserted claims. Although the addition of the inner tube inside the accused adapter's feed tube or probe allows the feed tube or probe to operate more efficiently in that it reduces glugging, this addition does not avoid infringement. Ebco's feed tube performs substantially the same function in substantially the same way to produce substantially the same result as does the feed tube claimed in the asserted patents.

Moreover, the Schulse patent number 1,228,836 and the Sheets patent number 4,793,514 (PTX 237 and 163 respectively), teach separate flow paths for air and water as means to more effectively move water and air and, therefore, reduce "glugging" in water bottles. These patents issued well before Burrows began to work on the WaterGuard device for Ebco. This prior art demonstrates that two separate flow paths for air and water is at least a well-recognized equivalent to an adapter feed tube or probe having a single flow path.

Ebco further argues that Ebco's patent on a no-spill adapter having a feed tube with the inner tube addition, the Burrows 5,413,152 patent (PTX 149), is further evidence of non-equivalency. The issuance to Ebco of a patent on

the accused device is irrelevant because the existence of one's own patent is no defense to infringement of another's patent. " 'It is elementary that a patent grants only the right to exclude others and confers no right on its holder to make, use, or sell." ' Bio-Technology Gen. Corp. v. Genentech. Inc., 80 F.3d 1553, 1559 (Fed.Cir.) (quoting Vaupel Textilmaschinen KG v. Meccanica Euro Italia SPA, 944 F.2d 870, 879 n. 4 (Fed.Cir.1991)) (emphasis supplied), cert. denied, 117 S.Ct. 274 (1996).

Therefore, if we had not found that Ebco's accused adapters literally infringe the asserted claims, we would find that Ebco's WaterGuard I, II and III adapters infringe the '531 and '855 patents under the doctrine of equivalents.

B. Invalidity

Ebco contends that the '531 and '855 patents are invalid because: (1) Elkay failed to name the proper inventors; (2) Elkay's invention is anticipated by a prior invention; and (3) Elkay's invention is obvious in light of the prior art. Each claim of a patent is presumed valid. 35 U.S.C. § 282. As the party asserting invalidity, Ebco must prove by clear and convincing evidence the facts necessary to demonstrate that the '531 and '855 patents are invalid. United States Surgical Corp. v. Ethicon, Inc., 103 F.3d 1554, 1564 (Fed.Cir.), cert. denied, 118 S.Ct. 369, 139 L.Ed.2d 287 (1997). With these standards in mind, we will address each of Ebco's contentions in turn.

1. Failure to Name Proper Inventors

First, Ebco contends that the '531 and '855 patents are invalid for failure to name the proper inventors. Specifically, Ebco asserts that Elkay failed to name Richard Fisher ("Fisher") as an inventor. Ebco also asserts

that Elkay improperly named Ronald Katz and Edward Donselman as inventors because they allegedly did not contribute to the patented invention.

Under 35 U.S.C. § 116, "[w]hen an invention is made by two or more persons jointly, they shall apply for patent jointly and each make the required oath, except as otherwise provided by this title. Inventors may apply for a patent jointly even though (1) they did not physically work together or at the same time, (2) each did not make the same type or amount of contribution, or (3) each did not make a contribution to the subject matter of every claim of the patent." Misjoinder or nonjoinder of inventors in an issued patent may be corrected if the error occurred without deceptive intent. 35 U.S.C. § 236. Correction of a patent is improper over the objection of the named inventor unless the fact finder receives clear and convincing evidence. Ethicon, Inc. v. United States Surgical Corp., 937 F.Supp. 1015, 1034 (D.Conn.1996).

Because conception is the touchstone of inventorship, Burroughs Wellcome Co. v. Barr Lab., Inc., 40 F.3d 1223, 1227 (Fed.Cir.1994), cert. denied, 516 U.S. 1071, 116 S.Ct. 771, 133 L.Ed.2d 724 (1996), a patent must name all of the people who contribute "to the final conception of what is covered by the patent claims." Ethicon, Inc., 937 F.Supp. at 1035; see also 35 U.S.C. § 116. "[T]he test for conception is whether the inventor had an idea that was definite and permanent enough that one skilled in the art could understand the invention...." Burroughs Wellcome Co., 40 F.3d at 1228. The idea or contribution must be specific and supply a particular solution to a problem at hand, a general goal or research plan is not enough. Id.; Fiers v. Revel, 984 F.2d 1164, 1169 (Fed.Cir.1993). A person who makes a practical and

concrete suggestion that contributes to the invention is, therefore, a joint inventor. Ethicon, Inc., 937 F.Supp. at 1036.

Inventorship must be shown by clear and convincing evidence. Price v. Symsek, 988 F.2d 1187, 1196 (Fed.Cir.1993). The inventor must describe his invention with particularity because "patent rights attach only when an idea is so far developed that the inventor can point to a definite, particular invention." Burroughs Wellcome Co., 40 F.3d at 1228. Nonetheless, the inventor's testimony alone is insufficient to prove conception and must be corroborated before inventorship is demonstrated. Price, 988 F.2d at 1194. Written descriptions, drawings, or models are corroborating evidence if sufficient proof exists to show that they existed at the pertinent time. Id. at 1196.

a. Richard Fisher

Ebco asserts that Fisher made an inventive contribution to the claimed subject matter of the '531 and '855 patents. Specifically, Ebco claims that Fisher contributed the "removable mounting means" and "sealing means" used in the claimed combination. Accordingly, Ebco asserts that Fisher is a co-inventor and must be named pursuant to § 116.

The evidence at trial established the following. In late 1984 or early 1985, the Bakers began developing a hygienic bottled water system that included a stainless steel unit supported in the reservoir by a frictional engagement that had an upstanding feed tube able to pierce a specially designed cap. (Tr. 1290-91; DTX 3). Henry Baker contacted Ebco in July 1985 to discuss the Bakers' no-spill piercer/adapter concept. On July 31, 1985, Henry

Baker met with Louis Benua, president of Ebco Manufacturing Company, Mark Blackstone, its director of marketing, and Ronald Greenwald, its chief engineer. (Tr. 1293-1294, 1324). At that time, the Bakers and Ebco signed a Confidential Disclosure Agreement whereby neither party could disclose the ideas of the other. (DTX 2). The Confidential Disclosure Agreement included a one-page written description and five pages of drawings disclosing the Bakers' concept. (DTX 3).

Fisher testified that in August 1985, Greenwald assigned Fisher to the Baker project for the specific purpose of determining if the Bakers' piercer concept could be adapted to fit Ebco's water coolers. (Tr. 1324, 1331-32). One week later, Fisher produced his first drawing which was sent to and received by the Bakers. (Tr. 1324-26; PTX 238, DTX 6). After failing to adequately develop the Baker's concept, Ebco and the Bakers severed their relationship in Fall 1987. (Tr. 894-97). In 1988, the Bakers brought their concept to Elkay. Elkay entered into an agreement with the Bakers to purchase and develop the Baker's concept. (JTX 14). Ultimately, Elkay evolved the Baker concept into the claimed invention.

At trial, Fisher used his drawing (PTX 238, DTX 6) to explain and identify the contributions that he believes he personally made to the claimed invention. Fisher testified that his adapter is supported by the top of the cooler cabinet and that he designed a tapered entry way extending downwardly and inwardly into the reservoir so that different bottle necks could be accommodated. (Tr. 1326- 28, 1337-40). Fisher also explained that he designed a tapered entry way to guide the water bottle onto the piercing probe which is molded to project upwardly from

the bottom of the adapter. (Id). Fisher further testified that his adapter includes a collar that supports the shoulder portion of the inverted water bottle so as to transmit the weight to the top of the cooler cabinet. (Id). Finally, Fisher testified that shortly after Henry Baker presented his concepts to Ebco, Greenwald drew a sketch depicting the information the Bakers disclosed. (Tr. 1324). This sketch has been lost or destroyed and was not produced at trial.

We find as a matter of fact that Ebco did not provide evidence sufficient to corroborate Fisher's testimony. See Price, 988 F.2d at 1194. Although Fisher produced a drawing illustrating how a no-spill adapter could be made out of molded plastic, Fisher's drawing taken alone does not establish clearly and convincingly that Fisher conceived of the ideas depicted therein. Fisher's drawing merely confirms that Fisher put pen to paper on a date certain. The drawing does not provide any proof as to who originated the features depicted by Fisher. Moreover, other than Fischer's recollection, Ebco presented no testimony as to the existence and content of the alleged Greenwald sketch. Accordingly, we find as matter of fact that Fisher's uncorroborated testimony alone is insufficient to establish Fisher's inventive contribution.

Indeed, the evidence establishes that the Bakers actually conceived the ideas depicted in Fisher's drawing. The drawings and description attached to Confidential Disclosure Agreement (DTX 3) disclose a version of the Baker's no- spill system which includes a disc in the lower portion of the bottleneck receiving cup supported by a spring. This spring-biased disk allowing the adapter to accommodate bottles having different neck lengths. The drawings also show an inwardly tapered annular ring to support an inverted water bottle on its shoulder. These

features were disclosed to Ebco by the Bakers before Fisher was even assigned to the Baker project and before Fisher produced his drawing.

Although the Bakers did not testify at trial, their deposition testimony (designations read into the record or stipulated as admitted) states that they conceived of the design elements depicted in Fisher's drawing. Furthermore, in his November 5, 1987 letter to Ebco, Henry Baker states that Ebco made no original contribution to the development of the Baker's concept. (DTX 18; H. Baker Dep., p. 138 II. 2-24). Moreover, Sands testified that, taken together, the drawings attached to the Confidential Disclosure Agreement, DTX 3, illustrate that the Bakers' no-spill concept could be modified to accommodate bottle necks having different lengths and support the bottle on its shoulder, that the Bakers' entire assembly appeared to be sitting on or in a cabinet, and that it involved a mounting means with a seal to the reservoir. (Tr. 3200-01, 3261-65). Sands' testimony in conjunction with Ebco's unexplained failure to raise Fisher's inventorship contention until May 1995, more than six years after Ebco knew that the Bakers began working with Elkay and two years after the filing of this lawsuit, weighs against Ebco position.

Finally, Henry Baker's deposition testimony states that Ebco did not propose any improvements to the Bakers' design. (H. Baker Dep., p. 93, line 21 to p. 95 line 2). Rather, John Baker stated that Fisher's drawing attempted to demonstrate how the Baker design concept and prototype adapter could be manufactured out of plastic rather than metal, a more expensive material. (J Baker Dep. 54-55, 64; Tr. 1307). At best, Fisher's contribution amounts to the use of plastic rather metal. The claims,

however, do not require that the adapter be made from a particular material.

Thus, we find that the testimony of Sands and the Bakers and the documentary evidence are more persuasive than Fisher's uncorroborated testimony. Ebco has not established by clear and convincing evidence that Fisher contributed to the claimed elements of the '531 and '855 patents. Therefore, we find that Fisher is not a joint inventor and that the asserted patents are not invalid for failure to name Fisher as an inventor.

t. Edward Donselman and Ronald Katz

Ebco contends that these patents are invalid for naming Katz and Donselman as co-inventors since their purported contributions were originally made by Fisher. Katz testified that he and Donselman contributed the removable mounting means and its tapered entry portion. (Tr. 357(-73). Moreover, because we have already found that Fisher did not contribute any inventive concepts to the '531 and '855 patents, Ebco's argument does not hold water.

2. Anticipation/Lack of Invention Under § 102(f)

Under § 102(f), "[a] person shall be entitled to a patent unless ... he did not himself invent the subject matter sought to be patented." 35 U.S.C. § 102(f). To prove anticipation, Ebco must prove by clear and convincing evidence that there are no differences "between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention." Scripps Clinic and Research Found. v. Genentech, Inc., 927 F.2d 1565, 1576 (Fed.Cir.1991). If Ebco must rely on more than one prior art reference,

anticipation cannot be demonstrated under § 102. Id.; Continental Can Co. USA, Inc. v. Monsanto Co., 948 F.2d 1264, 1267 (Fed.Cir.1991); Carella v. Starlight Archery and Pro Line Co., 804 F.2d 135, 138 (Fed.Cir.1986).

On April 15, 1988, Elkay retained Battelle Memorial Institute ("Battelle") to perform engineering work and provide detailed drawings for the Sweet Roll project, Elkay's code name for the development of its hygienic no-spill adapter. (DTX 74). Ebco claims that the drawings produced by Battelle engineers disclose every element of the subject matter claimed in the '531 and 855 patents. Accordingly, Ebco claims that the asserted patents are invalid for being anticipated by the Battelle drawings under § 102(f).

Ebco relies solely on two drawings produced by Battelle, DTX 99, dated June 17, 1988, and DTX 100, dated June 20, 1988 (the "Battelle drawings"). This evidence, however, does not allow Ebco to meet its substantial burden under § 102(f). The testimony of Daniel Becker, Battelle's Fed.R.Civ.P. 30(b)(6) witness and Donselman establish that Elkay and Battelle closely cooperated and exchanged ideas. (Becker Dep., pp. 56-57; Tr. 2171).

Moreover, the testimony of John Baker and Lewis Angotti, an Elkay project manager involved the "Sweet Roll" project, establishes that John Baker first conceived of the feed tube tip portion for use with a resealable cap. (J. Baker Dep., 201, 225-226; L. Angotti Dep., 119-124). Moreover, John Baker directed the preparation of a drawing depicting this concept on November 20, 1987, well before the Elkay hired Battelle and before the Battelle produced the drawings relied upon by Ebco. (DTX 37). Furthermore, Ebco's patent law expert, Christopher B.

Fagan, testified that Batelle has not asserted any claim of inventorship. (Tr. 3013). The evidence did not remotely, let alone clearly and convincingly, suggest that Battelle employees conceived of each and every claim element shown in the Battelle drawings. Thus, we find that Ebco failed to present evidence sufficient to prove its claim under § 102(f).

3. Obviousness Under § 103

35 U.S.C. § 103(a) provides that: "[a] patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." Ebco asserts that the '531 and '855 patents are invalid as obvious in light of the Doering 1,337,206 patent (the "Doering '206") (DTX 208), the Baker 4,699,188 patent (the "Baker '188") (DTX 1), the Liqui-Box device displayed at the October 8-10, 1987 International Bottled Water Association trade show in Chicago, Illinois, the follow-up disclosure by Liqui-Box to Elkay on January 14, 1988 (DTX 68-70, 130-139, 333, 338), and the Fisher drawing (DTX 6, PTX 238).

Patents enjoy a presumption of validity. 35 U.S.C. § 282. Accordingly, Ebco must prove facts that clearly and convincingly show that Elkay's claimed invention would have been obvious at the time the invention was made. Gentry Gallery, Inc., 134 F.3d at 1478. Under Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17-18, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966), the court must inquire

into four factors to determine obviousness under § 103: "the scope and content of the prior art, the differences between the prior art and the claimed invention, the level of ordinary skill in the field of the invention, and any objective indicia such as commercial success, long felt need, and copying." Arkie Lures, Inc. v. Gene Larew Tackle, Inc., 119 F.3d 953, 955 (Fed.Cir.1997). The record must provide a teaching, suggestion, or reason to make the engineering leap from the prior art to the asserted invention. "The absence of such suggestion to combine is dispositive in an obviousness determination." Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1578-79 (Fed.Cir.1997). In determining obviousness, the court cannot use hindsight to utilize the claims as a template and reconstruct the invention by picking and choosing elements at will from the prior art absent some teaching or suggestion supporting the combination. Pro-Mold and Tool Co., Inc. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1572 (Fed.Cir.1996); In re Gorman, 933 F.2d 982, 987 (Fed.Cir.1991).

a. Level of Ordinary Skill in the Field of the Invention

Obviousness is tested by reference to "the viewpoint of a person of ordinary skill in the field of the invention." Arkie Lures, Inc., 119 F.3d at 956. A person of ordinary skill in the art is a hypothetical individual who is presumed to be aware of all pertinent prior art. Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc., 807 F.2d 955, 962 (Fed.Cir.1986), aff'd, 980 F.2d 742 (Fed.Cir.1992). To determine the level of ordinary skill in the art, the court may consider some or all of the following factors as applicable: "(1) the education level of the inventor; (2)[the] type of problems encountered in the art;

(3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) education level of active workers in the field." Environmental Designs, Ltd. v. Union Oil Co. of Cal., 713 F.2d 693, 697 (Fed.Cir.1983), cert. denied, 464 U.S. 1043, 104 S.Ct. 709, 79 L.Ed.2d 173 (1984). The determination must focus on the conditions that existed at the time the invention was made. Arkie Lures, Inc., 119 F.3d at 956. Indeed, "[g]ood ideas may well appear 'obvious' after they have been disclosed, despite having been previously unrecognized." Id.

The Court agrees with Elkay and Ebco that the level of ordinary skill in the pertinent art is typified by an individual "having at least some technical training, probably through formal engineering courses and possibly having a bachelor's degree in engineering, together with at least several years of engineering and/or design experience involving bottled water coolers." (Statement of Undisputed Facts, ¶ 13.1.). This hypothetical individual would understand the basics of bottled water cooler design and the characteristics of bottled water cooler systems and component parts. Additionally, the Court finds that this person would have the ability to read and understand technical drawing and specifications. (Pre-Trial Order, ¶ 13.2). The obvious analysis will be conducted with reference to these determinations.

b. The Scope and Content of the Prior Art and the Differences Between the Prior Art and the Claimed Invention

The scope and content of the relevant prior art is defined as that which is "reasonably pertinent to the particular problem with which the inventor was involved."

Stratoflex Inc. v. Aeroquip Corp., 713 F.2d 1530, 1535 (Fed.Cir.1983). Ebco "cannot pick and choose among the individual elements of assorted prior art references to recreate the claimed invention." SmithKline Diagnostics, Inc. v. Helena Labs. Corp., 859 F.2d 878, 886-87 (Fed.Cir.1988). Accord Kolmes v. World Fibers Corp., 107 F.3d 1534, 1541 (Fed.Cir.1997). The prior art must provide some reason, suggestion, or motivation whereby a person of ordinary skill in the art would make the combination that comprises the patentee's invention. Gambro Lundia AB, 110 F.3d at 1578-79.

The parties have stipulated that the "scope and content of the relevant prior art pertinent to the Elkay patents includes at least those products and patents related to the dispensing of liquids from bottled water containers removably mounted to a dispensing device or cabinet wherein liquid is withdrawn from the container on demand in response to the operation of a valve or faucet formed as part of the dispensing device or cabinet downstream of the container." (Statement of Undisputed. Facts, ¶ 12.1). Also included in the relevant prior art are: (1) bottled water coolers commercially made and sold in the United States by Elkay, Ebco, Sunroc, and others before September 23, 1988; (2) conventional water bottle caps for five gallon water bottles commercially made and sold in the United States by Blackhawk Molding Company, Cap Snap Corporation and other companies prior to September 23, 1988; and (3) five gallon water bottles commercially made and sold in the United States by Liqui- Box, Reid Plastics, and others prior to September 23, 1988. (Statement of Undisputed. Facts, ¶ 12.2). In addition, Ebco claims that Doering '206 and Baker '188 patents, the Liqui-Box trade show device and follow-up technological disclosure, and

the Fisher drawing are within the scope and content of the prior art. We disagree.

The preambles of the independent claims of Elkay's '531 and '855 patents, recite in pertinent part, "an inverted unpressurized container having ... a substantially rigid, generally cylindrical body .... a coaxial cap surrounding at least an outer axial portion of said [container] neck. .... ('531 patent, claim 1, col. 7, ll. 59-66 and claim 7, col. 9, ll. 23-29; '855 patent, claim 1, col. 7, l. 62--col. 8, l. l). The preambles also recite "a dischargeable reservoir open at its upper end." ('531 patent, claim 1, col. 7, l. 58 and claim 7, col. 9, l. 22; '855 patent, claim 1, col. 7, l. 61).

The preamble limitations of the '531 and '855 patents exclude the Doering '206 patent from the field of relevant prior art. As Sands pointed out, the Doering '206 patent does not have a "reservoir, open at its upper end." (Tr. 3236-37). Moreover, one of the stated objectives of the patents-in-suit is "to provide a means for retrofitting existing water cooler systems with a hygienic system." ('531 patent, col. 2, ll. 3-5; '855 patent, col.2, ll. 4-6). Doering ' 206 does not disclose an adapter for "retrofitting" an existing water cooler system. Rather, Doering '206 teaches a closed system, without an open reservoir that resembles a pressure water cooler. (Tr. 3476). Furthermore, Doering '206 does not contain a removable mounting means and, thus, it has no need for the "sealing means carried by said removable mounting means for sealingly closing said open upper end of said reservoir" as recited in the body of claim 1 of the '531 and '855 patents.

In addition, the 77 year-old Doering '206 patent employs a rubber stopper rather than a coaxial cap with an axially extending skirt portion as required by the

preambles of the asserted claims. The Doering '206 also teaches that the flow of air through the feed tube is controlled by a valve. An examination of Figure 4 of the Doering '206 patent shows that valve 4 normally obstructs the flow of replacement air through line 46 into the closed reservoir and then up through the feed tube. Claim 7 of the '531 patent, however, discloses a feed tube unobstructed by external valving. Thus, Doering '206 contains differences from the claimed invention that take the Doering '206 outside the scope of the relevant prior art.

Most damaging to Ebco's obviousness claim is the use of the Liqui-Box trade show device as support for its obviousness claim. Ebco asserts that Liqui-Box displayed a device at the October 1987 International Bottle Water Association trade show that is prior art rendering the asserted patents invalid. At trial, Ebco submitted a video tape from that trade show and a December 1987 Liqui-Box marketing video tape. (DTX 130, 131) In addition, still photographs from these tapes were also admitted. (DTX 132-139). These tapes and the still photographs are blurry and offer only fleeting views of the Liqui-Box trade show device. The actual trade show device itself was scrapped after the show. Based on the inadequacies of the video tape, Ebco's counsel prepared and submitted DTX 338-1 to 338-4 and DTX 401-1 to 402-15 and as "representative" depictions of the trade show device. In addition, Exhibit 333, a replica of that device, was created for trial without aid of Liqui-Box's original drawings. (Tr. 1507, 1525).

The testimony at trial, however, demonstrates that these "representative" exhibits do not accurately depict the structure shown at the trade show and, therefore, are of no probative value. John Ulm ("Ulm"), a retired manufacturing and management engineer for Liqui-Box

and coinventor of the Bond 4,421,146 (the "Bond '146) and 4,445,551 (the "Bond '551) patents, testified that DTX 333 and 338 show a seal between the device and the round reservoir even though the actual trade show device did not have the seal. (Tr. 1507, 1530). Moreover, Ulm testified that Ebco's "representative" device is not dimensionally accurate and that Ebco's "representative" drawings are not drawn to scale. (Tr. 1530-31). Ulm also stated that, unlike Ebco's trial exhibits, the trade show device was not mounted on a water cooler. (Tr. 1507). Additionally, Ebco's drawings depict a chamfer in the "entry portion" at the top of the cylinder which received the bottle neck. The actual trade show device, however, had a radius, as depicted in the Ulm 4,874,023 patent (the "Ulm '023"). (Tr. 1532-33; DTX 207). Most telling, however, are the statements of Ebco's trial counsel admitting that the actual Liqui-Box trade show device differed from the exhibits, e.g. Tr. 1692, 1694, and the admission by Ulm stated that the "representative" drawings were only "partially" accurate. (Tr. 1524-25). Accordingly, we decline to afford any weight to the Liqui-Box trade show device and find that it is not relevant prior art.

Furthermore, the January 1988 Liqui-Box technology disclosure is not relevant prior art. In January 1988, Ulm met with Donselman at Elkay. Donselman testified that he drew DTX 68 after the meeting. Ebco claims that this drawing in conjunction with the Liqui-Box trade show device meets virtually every limitation recited in the patents-in-suit. The evidence, however, belies Ebco's assertion.

Ulm testified that he shared "some samples of the cap and I don't know--and I am sure we took some kind of a probe along, but we did not take a cover." (Tr. 1510-11;

accord Tr. 1533-34). Donselman recalled seeing a probe and a cap, but could not recall which, if any, of the other design features shown in his drawings may have been disclosed by Ulm. (Tr. 2128-30). Donselman further testified that his drawing did not accurately depict the information disclosed by Liqui-Box and that it shows Donselman's own modifications "pertaining to making a Water Safe system out of it." (Tr. 2124, 2128-30). This evidence does not clearly and convincingly establish that Ulm or Liqui-Box contributed any of the design elements depicted in Donselman's drawing.

Moreover, the preamble language, and the specific container and cap recitations therein, exclude bag-in-the-box containers, such as Liqui-Box's product, and couplers from the relevant field of the prior art. Bag-in-the-box type containers comprise a flexible bag fitted into a cardboard box, rather than a substantially rigid body as required by the asserted claims. The Liqui- Box quick-connect-disconnect, or QCD connectors, shown in the Bond '551 and Bond '146 patents (DTX 23, 24) do not include "a coaxial cap surrounding at least one outer axial portion of [a container] neck" as required by the preambles. Indeed, Ebco's technical expert admitted that the Savage 32,354 patent (the "Savage '354") (DTX 26), cited by Elkay during the prosecution of the '531 and '855 patents, provides a preferred solution to the problem of accepting bottles with different neck lengths. (Tr.2004, 2061-62).

Lastly, because we found that the Bakers actually conceived of the ideas depicted in the Fisher drawing, see supra § III, B, 1, a, the Fisher drawing is not relevant prior art.

To support its claim the the prior art in combination renders the '531 and ' 855 patents obvious, Ebco presented Roger A. Keech, a full professor of engineering at Cal Poly State University. Professor Keech teaches upper level engineering science classes and is himself a licensed professional engineer. Prior to being hired as an expert in the instant lawsuit, Professor Keech had no experience with bottled water coolers, no-spill devices, or bag-in-the-box dispensers such as those manufactured and sold by Liqui-Box. (Tr. 1644-50, 1915-166; Pre-Trial Order, Exhibit 2E, Keech Resume; July 21, 1997 Order).

Using the same computer equipment as Sands and referencing the relevant language in the patents-in-suit, Professor Keech combined elements from the Doering '206 and Baker '188 patents, the Liqui-Box trade show device and related technological disclosures, the Fisher drawing and other relevant prior art, such as the Savage '354 patent, to support his testimony. In addition, Professor Keech color-coded the prior art asserted by Ebco to the relevant portions of the patents-in-suit. (DTX 340-345) Ultimately, Professor Keech concluded that his prior art combinations fully meet the claim language found in each and every one of the asserted Elkay patents.

Although Keech is qualified as an expert in the area of design and mechanical engineering, Tr. 1650, 1652, his lack of experience in the subject matter of the patents in suit, other than what he learned as an expert in the instant lawsuit, significantly affects the weight afforded to his testimony. Moreover, professor Keech admitted that his expert report (DTX 321) contains no illustrations and that he did not prepare the trial exhibits illustrating the prior art combinations presented by Ebco. (Tr.1925-29, 1931, 1934; DTX 334-338, 399-402). Equally telling is Professor

Keech's admission that he did not make the decision as to how much of the Doering '206 patent should be shown in the combination depicted in DTX 334, drawing 5. (Tr.1934). Professor Keech's assertion that "he made every one of those combinations" and described the combinations with words in his report, Tr.1933-34, does not overcome that fact that he did not participate in the preparation of the exhibits forming the basis of his conclusions.

The drawings utilized by Professor Keech to illustrate his testimony pick and choose various elements from the prior art and combine those elements with the goal of achieving the claimed invention. Hindsight reconstructions, however, are not evidence of obviousness. See Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1575 n. 30 (Fed.Cir.1987). The use of sketches reconstructing the prior art, which insert as elements of a claim parts selected from separate patents so that Professor Keech could find each of those inserted elements in that sketch and then submit the sketch as evidence, necessarily involve the exercise of hindsight. See Id. Moreover, "[v]irtually all inventions are necessarily combinations of old elements. The notion, therefore, that combination claims can be declared invalid merely upon finding similar elements in separate prior patents would necessarily destroy virtually all patents and cannot be the law under the statute, § 103 ." Id. at 1575. Accordingly, we find that Keech's opinions and accompanying illustrations are not persuasive and are impermissibly based on hindsight. E.g. Heidelberger Druckmaschinen AG v. Hantscho Commercial Prod., Inc., 21 F.3d 1068, 1072 (Fed.Cir.1994).

Notwithstanding our finding that the prior art asserted by Ebco is not relevant, we find that nothing in this prior art, other than impermissible hindsight, would have lead a person of ordinary skill in the art in 1987 or 1988 to combine the prior art references cited by Ebco to achieve the inventions claimed by the '531 and '855 patents. Thus, Ebco's obviousness case "suffers from a significant deficiency." See Gambro Lundia AB, 110 F.3d at 1579

c. Secondary Considerations

Under Graham, 383 U.S. at 35-36, secondary considerations, such as commercial success, skepticism of skilled artisans, long felt need, copying, licensing of the invention, and failure of others to achieve the invention are relevant to the obviousness inquiry. Arkie Lures, Inc., 119 F.3d at 957; Minnesota Mining and Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1573 (Fed.Cir.1992). These secondary considerations are highly probative of obviousness, but are not necessarily entitled to more weight than the other three Graham factors. Arkie Lures, Inc., 119 F.3d at 957; Richardson-Vicks Inc. v. Upjohn Co., 122 F.3d 1476, 1483 (Fed.Cir.1997). Nonetheless, " 'evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not. It is to be considered as part of all the evidence, not just when the decision maker remains in doubt after reviewing the art." ' Arkie Lures, Inc., 119 F.3d at 957 (citing Stratoflex, Inc., 713 F.2d at 1538-39.

i. Failure of Others

Ebco's own history with the Bakers belies its obviousness contention. Initially, in 1985, the Baker's brought their concept to Ebco. Ebco attempted to develop the Baker's piercing technology for two full years, utilizing Fisher and another engineer, but ultimately Ebco could not produce a workable piercer adapter. (Tr. 559, 1358, 1410). As a result, the Baker-Ebco relationship was severed in late 1987. (Tr. 894-97). Subsequently, the Bakers began working with Elkay and Elkay bridged the gap between the Baker concept and the claimed invention.

During this same general time period, Liqui-Box began working on its DeCap adapter, a no-spill device used exclusively with Liqui-Box products. (Tr. 1003, 1006). As of mid-1989, Liqui-Box had not successfully adapted this technology to bottled water coolers. Liqui-Box and Ebco then began working together to further develop the develop DeCap adapter for use on bottled water coolers. (Tr. 924-28, 1550-54; PTX 122). The combined Ebco-Liqui-Box efforts failed, and Liqui-Box attempted to complete the development of its DeCap adapter on its own. (PTX 143).

Elkay displayed its prototype Water Safe system at the October 1988 International Bottled Water Association trade show. Subsequently, Liqui-Box revised its version of the DeCap system and began to market that new system. Ebco offered the revised DeCap system to its customers during 1989-1990. After Ebco failed to sell a single DeCap adapter, Ebco stopped offering the product. (Tr. 892). Liqui-Box sold approximately 10,000 DeCap adapters to Great Pines Water Company. (Tr. 1144-45). Ultimately, however, the DeCap adapter was a commercial failure and Liqui-Box suffered a $2.1 million judgment due to the

leakage of water from the DeCap adapter. (Tr. 1087-88; PTX 219).

The failures of Ebco and Liqui-Box to develop and commercialize a device possessing all of the features provided by the claimed invention comprise significant probative evidence that the claimed invention is not obvious in light of the prior art. "Indeed, the litigation argument that an innovation is really quite ordinary carries diminished weight when offered by those who had tried and failed to solve the same problem, and then promptly adopted the solution that they are now denigrating." Heidelberger Druckmaschinen, 21 F.3d 1068 at 1072.

ii. Long Felt Need

Bottled water coolers have long suffered from spillage and hygiene problems. Well before the conception of the Elkay invention, others such as the Bakers, Ebco, and Liqui-Box attempted to make a device that delivered water in a hygienic manner and that allowed for easier loading an unloading of full or partially full water bottles. In the mid-1980's, bottled water industry representatives and government regulators began to review water purity standards. The motivation to develop a more hygienic bottled water delivery system increased with the passage of the Safe Drinking Water Act Amendments of 1986, 42 U.S.C. § 300f *et seq.* (Tr. 561-62). Thus, prior to 1988 when Elkay introduced its patented invention, the bottled water industry wanted a system that provided the advantages and features offered by Elkay's patented invention.

iii. Commercial Success

To show commercial success, Elkay must demonstrate a nexus between the proven success and the patented invention. Demaco Corp. v. F. Von Langsdorff Licensing Ltd., 851 F.2d 1387, 1392 (Fed.Cir.), cert. denied, 488 U.S. 956, 109 S.Ct. 395, 102 L.Ed.2d 383 (1988). Once Elkay satisfies its burden, Ebco must present evidence demonstrating that the commercial success is attributable to extraneous factors other than the patented invention, such as advertising or superior workmanship. Id. at 1393.

Elkay presented substantial evidence that the inventions described in the '531 and '855 patents are commercially successful. (E.g. Tr. 107-09, 322, 356; PTX 87-92A, 126, PDX 408, 410, 414, 414A). Moreover, several smaller bottlers such as Daniel Buettner, a marketing and salesman at Water and Accessories, James Keene president of Mountain Mist Bottled Water, and Steve Carroll, owner of Northwest Georgia Mountain Water, testified that the Ebco and Elkay no-spill devices positively affected sales and rentals and enabled them to take business away from the larger bottlers who offered only open reservoir coolers. (Tr. 2721-22, 2726, 2730, 3437-40, 3449, 3452-53). Steve Carroll also stated that he advertised the no-spill feature in his company's Yellow Page advertising. (Tr. 2726). Accordingly, the Court concludes that Elkay demonstrated the commercial success of the claimed invention.

Elkay also proved a nexus between the invention and the commercial success in that customers and smaller bottlers reap the benefits of the no-spill adapter. Indeed, the testimony of the smaller bottlers shows that the features and advantages provided by the Water Safe and

infringing WaterGuard adapters had a positive impact on sales and water cooler rentals. The commercial success of Elkay's patented invention therefore, weigh in favor of nonobviousness.

iv. Copying

The copying of another's invention provides additional evidence of nonobviousness. Avia Group Int'l, Inc. v. L.A. Gear Cal., Inc., 853 F.2d 1557, 1564 (Fed.Cir.1988). In Spring 1990, Ebco and Bruce Burroughs/Hydrotechnology, Inc. signed an agreement to form Ebtech. (JTX 10). Elkay introduced its Water Safe system on a commercial scale in the last half of 1990. (Tr. 55). After the failure of the Liqui-Box DeCap system, Ebco had no product to compete with Elkay's Water Safe. In Fall 1990, Perrier Group of America ("Perrier"), the largest bottled water company operating the the United States, approached Ebco to discuss the possibility of enhancing the Liqui-Box DeCap device so that it could be used with non-Liqui-Box products. (Tr. 890-91, 1000-04). After that failed to develop, Burrows constructed a working WaterGuard device and demonstrated it at the October 1991 International Bottled Water Association trade show. (Tr. 3551). Burrows testified that he saw a Water Safe system before he started designing the WaterGuard. (Tr. 1152-53).

The evidence establishes that, not only did Ebco copy the patented invention, but that a significant percentage of its water coolers are now sold with a no-spill adapter. Thus, competitor copying of the asserted invention constitutes substantial evidence of nonobviousness.

d. Resolution of the Obviousness Issue

After careful and through consideration of the evidence with regard to the Graham factors, we find that Elkay has not demonstrated obviousness by clear and convincing evidence. The differences between the asserted claims and the prior art provide strong evidence of nonobviousness. Moreover, the relevant prior art contains no teaching, suggestion, or motivation to employ the claimed combination in the manner disclosed by the '531 and '855 patents.

C. Unenforcability Due to Inequitable Conduct

Ebco also contends that the '531 and '855 patents are unenforceable because Elkay engaged in inequitable conduct by intentionally failing to disclose material prior art to the Patent and Trademark Office during the patent prosecution process. Elkay asserts that the withheld prior art is not material and is cumulative. For the following reasons, we find that Ebco failed to present clear and convincing evidence of inequitable conduct.

"Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the [Patent and Trademark] Office, which includes a duty to disclose to the [Patent and Trademark] Office all information known to that individual to be material to patentability...." 37 C.F.R. § 1.56(a). The patentee has no duty to submit information that is not material to the patentability of any existing claim. 37 C.F.R. § 1.56(a). Moreover, the patent applicant need not disclose otherwise material prior art if that art is merely cumulative or less material than the prior art already before the Examiner. Halliburton Co. v.

Schlumberger Tech. Corp., 925 F.2d 1435, 1441 (Fed.Cir.1991).

The duty of candor and good faith is not a legal fiction and has long been an essential part of the patent process. Precision Instrument Mfg. Co. v. Automotive Maintenance Mach. Co., 324 U.S. 806, 818, 65 S.Ct. 993, 89 L.Ed. 1381 (1945). If proved, inequitable conduct renders the entire patent unenforceable not just the claims to which the inequitable conduct has been directed. Molins PLC v. Textron, Inc., 1173, 1178 (Fed.Cir.1995).

"Inequitable conduct consists of an 'affirmative misrepresentation of a material fact, failure to disclose material information or submission of false material information, coupled with an intent to deceive." ' Kolmes, 107 F.3d at 1541 (citing Molins PLC, 48 F.3d at 1178). Specifically, Ebco must establish by clear and convincing evidence that: (1) the withheld prior art is material, (2) the patent applicant knew of this prior art and its materiality, and (3) the failure to disclose the prior art resulted from an intent to deceive or mislead the Patent and Trademark Office. Molins, 48 F.3d at 1178. "A reference which merely replicates references already before the examiner, however, is not material." Gambro Lundia AB, 110 F.3d at 1580. See also 37 C.F.R. § 1.56(b)(2)(ii). If Ebco satisfies its burden of proof, the court must weigh any threshold finding of materiality and intent in light of all the circumstances, including evidence of good faith, to determine whether they warrant a conclusion that inequitable conduct occurred. Gambo Lundia AB, 110 F.3d at 1580.

In support of its inequitable conduct defense, Ebco presented Christopher B. Fagan ("Fagan"), a patent attorney with more than 25 years of trial practice

experience. Although Fagan is a knowledgeable patent attorney, his employment experience at the Patent and Trademark Office is limited to serving as a patent examiner while in law school. In response, Elkay presented Rene D. Tegtmeyer ("Tegtmeyer"). Tegtmeyer has extensive experience at the Patent and Trademark Office. He was the Assistant Commissioner for Patents from 1975-1989, the Acting Commissioner of Patents from 1973-1974, and a Patent Examiner from 1959-1964. Tegtmeyer worked at the Patent and Trademark Office for a significant time period and is, therefore, intimately familiar its practices, including the type of issues in the instant lawsuit. Thus, the Court finds Tegtmeyer substantially more credible and persuasive than Fagan.

Ebco's Unenforcability arguments focus on the language of claim 7 of the '531 patent which refers to the hollow feed tube which has no internal or external valve or other obstruction. This claim states "said fluid passage means being unobstructed by internally or externally disposed valving to permit the free flow of liquid and air therethrough." ('531 patent, claim 7, col. 10, ll. 24- 26). Elkay argued to the Examiner that the Bond '146, Ulm '023, and Savage '354 patents were the most pertinent prior art because, unlike Elkay's invention, these references showed valves obstructing the feed tubes. Ultimately, the Examiner allowed claim 7 because "the prior record does not teach a ... feed tube as claimed wherein the feed tube has a passage means which both dispenses liquid from the container into the reservoir and admits air from the reservoir into the container." (JTX 1, Paper No. 7, p. 2). The Examiner further noted that in the Krug reference cited by Elkay, "feed tube 13 does not provide a means for admitting air." (Id).

Now, Ebco asserts that Elkay's patent counsel could not have presented arguments to the Examiner in support of the claim 7 language had Elkay cited certain prior art purportedly known to Elkay at that time. Specifically, Ebco claims that Elkay intentionally withheld the Doering '206 and the Bond '551 patents from the Examiner. Ebco contends that these patents teach a valveless feed tube or probe. Ebco also claims that the Liqui-Box Patent Cooperation Treaty foreign patent application and technology is material prior art improperly withheld by Elkay.

Fagan testified that the Doering '206 patent completely discloses the combination of elements that the Examiner stated were not present in prior art that he specifically relied upon when he allowed claim 7 of the '531 patent. (Tr. 2438, 2483, 2495-96, 3727). Fagan opined that the "withheld" Doering '206 and Bond '551 patents each disclose a valveless feed tube or probe. (E.g. Tr. 2405-06, 2420-24). Fagan however, failed to recognize that the feed tube of Doering '206 and the feed tube of Bond '551 do not teach a fluid passage means "unobstructed by externally or internally disposed valving" as required by claim 7 of the '531 patent. In Doering '206, the free flow of air through the feed tube is normally obstructed by external valving 40. Similarly, the free flow of liquid through the Bond '551 probe is normally obstructed by external valve 71.

Fagan also relied on Bond '551, figures 10 and 11, and the valveless feed tube of Doering '206 depicted in figures 7 and 8. Fagan opined that these figures demonstrate that Bond '551 and Doering '206 are highly material because they show feed tubes without internal valves. The figures cited by Fagan, however, are truncated

depictions of the feed tube or probe An examination of figures depicting the entire feed tube or probe undercut Fagan's conclusion.

Figure 12 of the Bond '551 patent shows the entire feed tube and it is obstructed by external valving. Likewise, figures 1 and 4 of Doering '206 depict external valving which blocks the flow of replacement air through the feed tube. Figures 1 and 4 also show that the fluid passage means for the flow of air through feed tube 23 includes an air tube 46 whose open end 39 is normally blocked by valve 40. When the handle 43 is pressed down to draw water from the vessel or chamber 25, valve 40 is moved away from the open end of the air tube 46 so as to permit the flow of air therethrough. Thus, Fagan's conclusion that Doering '206 and Bond '551 disclose feed tubes or probes unobstructed by valving is not correct.

Moreover, the prior art references cited to and considered by the Examiner disclose external valving. See Krug 2,057, 238 (DTX 193) external valve 16 and Kienlein 4,523,698 (PTX 201) external valve 22. Because Doering '206 and Bond ' 551 teach a feed tube or probe obstructed by a valve, these references are no more appropriate or pertinent than the prior art considered by the Examiner. In addition, Tegtmeyer testified that the withheld references were merely cumulative. (Tr. 3385-86). Tegtmeyer further stated that a patent applicant generally tries to avoid "dumping too much on the examiner" and that if a list of prior art references was very long, he would cull them down. (Tr. 3387).

We find Tegtmeyer's testimony credible and convincing. The references cited by Fagan are cumulative examples of feed tubes or probes with obstructed fluid passage means. Thus, we do not find credible Fagan's

conclusion that, "I think that's highly significant that the Examiner's reason for allowance of these claims hinged on his having to rely on Krug as the best reference he could find when he didn't have Doering." (Tr. 2495-96 OR 2498). Furthermore, the Liqui- Box Patent Cooperation Treaty foreign application (DTX 189) does not make Fagan's testimony any more persuasive. This application discloses nothing more than what is disclosed in the figures in the Bond '146 patent, cited by Elkay to the Examiner, and the Bond '551 patent disclosed above and, therefore it is cumulative. Accordingly, we find that Ebco has failed to demonstrate that the uncited art was material.

Using hindsight, it is not difficult to find items that could have been brought to the Examiner's attention. It is much more difficult, however, to prove that a patent applicant intentionally misled the Examiner by failing to disclose material information. Because we found that the withheld art was merely cumulative, we need not address Ebco's claim that Elkay or its patent counsel intentionally and knowingly withheld material prior art from the Examiner. For all of the foregoing reasons, we find that Ebco has not met its burden to prove by clear and convincing evidence that Elkay engaged in inequitable conduct.

D. Damages

"Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court." 35 U.S.C. § 284. The claimant, must prove the actual of actual damages by a preponderance of the evidence.

Minco, Inc. v. Combustion Eng'g Inc., 95 F.3d 1109, 1118 (Fed.Cir.1996); Hebert v. Lisle Corp., 99 F.3d 1109, 1119 (Fed.Cir.1996).

Compensatory damages are measured by the amount that would place the patentee in the position in which it would have been absent the infringement. Compensatory damages may be determined by three methods: (1) lost profits; (2) an established royalty; or (3) a reasonable royalty. Lost profits assess the actual damages suffered by the patentee. Trell v. Marlee Elec. Corp., 912 F.2d 1443, 1445 (Fed.Cir.1990). A reasonable royalty is intended to provide "a just recovery to persons who for evidentiary or other reasons cannot prove lost profits or an established royalty." ' Hayhurst v.. Rosen, No. CV-91-4496, 1992 WL 123178,* 13 (E.D.N.Y. Sept. 8, 1992). The damages award may be split between lost profits, to the extent proven, and a reasonable royalty. State Indus., Inc. v. Mor-Flo Indus., Inc., 883 F.2d 1573, 1577 (Fed.Cir.1989), cert. denied, 493 U.S. 1022, 110 S.Ct. 725, 107 L.Ed.2d 744 (1990).

The amount of damages is a question of fact. SmithKline Diagnostics, Inc. v. Helena Labs. Corp., 926 F.2d 1161, 1164 n. 2 (Fed.Cir.1991). Although an award cannot be totally speculative, "the amount need not be proven with unerring precision." Standard Haven Prod., Inc. v. Gencor Indus., Inc., 953 F.2d 1360, 1374 (Fed.Cir.1991), cert. denied, 506 U.S. 817, 113 S.Ct. 60, 121 L.Ed.2d 28 (1992). "Any doubts regarding the calculatory precision of the damage amount must be resolved against the infringer." Kaufman Co., Inc. v. Lantech, Inc., 926 F.2d 1136, 1142 (Fed.Cir.1991). Accord Minco Inc., 95 F.3d at 1118.

The parties have agreed that the applicable period for the damages calculation is August 20, 1993 to the present. (Statement of Undisputed facts, ¶ 16.1).

1. Reasonable Royalty

Elkay claims a reasonable royalty of $1.50 for each infringing adapter sold by Ebco. Ebco argues that a reasonable royalty is actually 40 cents to 50 cents.

A reasonable royalty is measured by a hypothetical arm's length negotiation between a willing licensor and a willing licensee just prior to the time the infringement began. Unisplay S.A. v. American Elec. Sign Co., 69 F.3d 512, 517 (Fed.Cir.1995). In determining the amount of the reasonable royalty, the fact finder may consider the factors set out in the seminal case Georgia- Pacific Corp. v. U.S. Plywood Corp., 318 F.Supp. 1116 (S.D.N.Y.1970), modified on other grounds, 446 F.2d 295 (Fed.Cir.), cert. denied, 404 U.S. 870, 92 S.Ct. 105, 30 L.Ed.2d 114 (1971). SmithKline Diagnostics, Inc., 926 F.2d at 1168. The fifteen Georgia-Pacific factors are:

> (1) The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty. (2) The rates paid by the licensee for the use of other patents comparable to the patent in suit. (3) The nature and scope of the license, as exclusive or non- exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold. (4) The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly. (5) The commercial relationship between the licensor

and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter. (6) The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales. (7) The duration of the patent and the term of the license. (8) The established profitability of the product made under the patent; its commercial success; and its current popularity. (9) The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results. (10) The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention. (11) The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use. (12) The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions. (13) The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer. (14) The opinion testimony of qualified experts. (15) The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a

> prudent licensee--who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention--would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

Georgia-Pacific Corp., 318 F.Supp. at 1120. This exhaustive list contains factors which may not be relevant considerations for every hypothetical negotiation. See e.g., Gargoyles, Inc. v. United States, 113 F.3d 1572, 1579 (Fed.Cir.1997); Maxwell v. J. Baker, Inc., 86 F.3d 1098, 1109-1110 (Fed.Cir.1996), cert. denied, 117 S.Ct. 1244, 137 (1997). The determination of a reasonable royalty is an issue of fact. SmithKline Diagnostics, Inc., 926 F.2d at 1164.

At trial, Elkay's damages expert, Raymond Sims ("Sims"), vice president of the economics group at A.T. Kearney, Inc., provided an in-depth analysis of the applicable Georgia-Pacific factors. (PTX 33). Sims concluded that Elkay should receive from Ebco a minimum royalty of $1.50 per infringing WaterGuard adapter sold. (Tr. 583, 3614-15). Ebco's financial expert, Jeffrey H. Kinrich "(Kinrich"), a Price Waterhouse LLP partner specializing in dispute analysis and corporate recovery, opined that the reasonable royalty rate is 4.2% of the sales price of the adapter or approximately 40 cents-50 cents. (Tr. 2838-56, 2937; e.g. DTX 361R, 362R, 388R). We find the testimony of Sims more credible and entitled to greater weight than the opinions offered by Kinrich.

We have already determined that the patented technology is commercially successful. See supra section III, B, 3, c, iii. Nonetheless, the best evidence of the value

of Elkay's patented technology is the market price a willing buyer will pay. Three Elkay licenses are most probative of this determination.

The first relevant agreement is the 1988 agreement between Elkay and the Bakers. (JTX 14). Under this agreement, Elkay purchased the Baker's technology which Elkay then developed into the claimed invention. (Tr. 590-91). Elkay paid the Bakers an initial payment of $50,000, two additional $50,000 payments, and an ongoing royalty of 4.5% of the selling price of each Water Safe system ultimately manufactured. If Elkay entered into a sub-license agreement, the Bakers would receive the greater of 50% of net royalty fees or net income or the 4.5% royalty otherwise due. (Tr. 590-91; JTX 14). Regardless of the terms of any license or sublicense agreement, Elkay would still have to pay the Bakers a minimum of 4.5% of the selling price of each patented device sold. (Tr. 591). Accordingly, we agree with Sims' conclusion that the Baker agreement set a minimum for the hypothetical Elkay-Ebco licence. (Tr. 591-92).

In November 1995, Elkay licensed its patented technology to Marvel Tek Napco ("MTN"), which markets thermoelectric counter top coolers and crock-type water dispensers. (PTX 100). Under the agreement, Elkay purchased a one-third interest in MTN. At that time, Elkay had essentially no presence in the counter top and crock-type cooler market. Based on Elkay's option to purchase the remaining two-thirds interest in MTN, Elkay initially allowed MTN to develop and use the Water Safe technology at no charge. (Tr. 593-94). If Elkay purchased the rest of MTN, a royalty would be unnecessary. If Elkay did not exercise its purchase option, MTN would pay a licensing fee and a royalty of at least $1.00 per Water Safe

sold. (Tr. 594-95, 3616-17; PTX 100). Ultimately, Elkay choose to acquire one hundred percent of MTN. (Tr. 594, 3618).

In September 1996, Elkay also entered into a licensing agreement with Industria Brasileira de Bebedouras Ltda. ("IBBL"), a Brazilian water cooler manufacturer and distributor. Under the agreement, PTX 102A, IBBL agreed to pay a royalty of $1.50 per no-spill hygienic unit manufactured. In addition, IBBL agreed to buy and distribute a specified quantity of high-end Elkay coolers. (Tr. 595-96; PTX 102A). IBBL could use and sell Elkay's technology only in Brazil. (Tr. 595-96).

Although not exactly analogous, the Baker, MTN, and IBBL agreements are highly probative of a hypothetical Elkay-Ebco licensing agreement. Kinrich's complete rejection of the relevance of the agreements, Tr. 2840, 2849, 2931-35, is not credible.

The Bakers, MTN, and IBBL do not compete with Elkay and, therefore, the licensing agreements pose no risk to of lost sales to Elkay. Indeed, in addition to monetary incentives, Elkay reaped other benefits from the licencing agreements. The Baker agreement allowed Elkay to develop the technology in the asserted patents. The MTN and IBBL agreements allowed Elkay to enter a new geographic market (IBBL) and a new product market (MTN). (Tr. 3618). Based on Ebco's undisputed position as a direct competitor of Elkay, Elkay would risk lost sales through the hypothetical licensing agreement. Accordingly, we agree with Sims that an Elkay-Ebco license would be at a higher rate than the Baker, IBBL, or MTN licensing fees. (Tr. 590-96, 602-03, 3620). Even so, we will not engage in undue speculation and decline to affix a royalty rate higher than $1.50, the highest specified

royalty paid to Elkay. Accordingly, based on the evidence presented, we find that the reasonable royalty is $1.50.

2. Lost Profits on Water Coolers

In addition to the reasonable royalty, Elkay claims that, but for Ebco's infringement, Elkay would have sold more water coolers because it was the only water cooler manufacturer offering a solution to the spilling and hygiene problems, namely the Water Safe no-spill adapters. As support, Elkay contends that adapters drive the sales of water coolers. Ebco asserts that Elkay failed to establish that no-spill adapters have any effect on cooler sales and, therefore, Elkay is not entitled to lost profits on any water coolers sold by Ebco.

To recover lost profits, the patentee show a "reasonable probability" that, but for the infringement, the patentee would have made the infringer's sales. Minco, Inc., 95 F.3d at 1118; Rite-Hite Corp. v. Kelley Co., Inc., 56 F.3d 1538, 1545 (Fed.Cir.), cert. denied, 516 U.S. 867, 116 S.Ct. 184, 133 L.Ed.2d 122 (1995).

Under the well recognized four factor test first articulated in Panduit Corp. v. Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152, 1156 (Fed.Cir.1978), the patentee must establish: (1) demand for the patented product; (2) absence of acceptable non-infringing substitutes; (3) manufacturing and marketing capability to exploit the demand; and (4) the amount of profit it would have made. Rite-Hite Corp., 56 F.3d at 1545. This test is a "useful but non- exclusive way for a patentee to prove entitlement to lost profits damages." Id. The Panduit test allows the court to reasonably infer that the claimed lost profits were actually caused by the infringing sales thereby establishing the "but for" causation required for the patentee's prima

facie case. Id.; Kaufman Co., 926 F.2d at 1141. When the patentee satisfies the Panduit test, it sustains the burden of proving entitlement to lost profits due to the infringing sales. Id. The burden then shifts to the infringer to demonstrate that the inference is unreasonable for some or all of the claimed lost sales.

The loss of profits is not presumed to result automatically from infringing sales. Nevertheless, the satisfaction of all four Panduit requirements allows the court to reasonably infer that the patentee would have made the sale but for the infringement. Kaufman Co., Inc., 926 F.2d at 1141. If the patentee and the infringer are the only suppliers present in the market, it is reasonable to infer that the infringement probably caused the loss of profits. Id.

a. Demand

A substantial number of sales of infringing products is compelling evidence of demand for a product. Gyromat Corp. v. Champion Spark Plug Co., 735 F.2d 549, 552 (Fed.Cir.1984). Ebco introduced the infringing WaterGuard adapters on a commercial scale in 1992. Ebco sold 591, 192 WaterGuard systems from August 23, 1993 through July 31, 1995. From January 1, 1994 through July 31, 1995, Ebco sold 66,253 bottled water coolers with a WaterGuard unit attached prior to shipment. (Statement of Undisputed Facts, ¶¶ 17.2-17.3). In addition, the evidence at trial demonstrates that both Ebco and Elkay experienced notable sales increases in each of the years following the introduction of the no-spill adapter. (E.g. Tr. 108-09, 567; PDX 239, 383, 408, 410, 414A, DTX 320). Accordingly, we find that Elkay has established a demand for adapters

containing the patented features during the relevant time frame.

b. Absence of Acceptable Non-Infringing Substitutes

At trial, Elkay sufficiently established the absence of non-infringing substitutes during the damages period. Any Ebco WaterGuard adapter offered by other suppliers such as Sunroc, are by definition an infringing products. (Tr. 114). Moreover, in 1995, Kel-Jac Engineering and Plastics Sales, Incorporated ("Kel-Jac"), in conjunction with Perrier developed and tested a nospill device. Although the Kel-Jac adapter was a no-spill system, it did not offer the contamination resistence feature of Elkay's sealed hygienic system. After Perrier decided not to use the Kel-Jac adapter, Kel-Jac sold a small number of adapters and then ceased sales due to the possibility of infringement liability. (Tr. 3138-39). Ebac, Limited, located in the United Kingdom, sells extremely limited quantities of no-spill devices in the United States, but it has no discernable market presence here. (Tr. 3140-41). Two Canadian companies, Crystal Mountain Water Coolers and Thermo Concepts, Inc., also manufacture no-spill hygienic systems for bottled water coolers. These companies, however, have no substantial presence in the United States and Elkay has already notified these companies that their products infringe Elkay's patents. (Tr. 114-115). Finally, Liqui-Box's limited sales of its DeCap no-spill product occurred before the damages period. Moreover, the DeCap product was a commercial failure and, thus, an unacceptable substitute. (Tr. 530, 1087-88, 1144-46; PTX 219). Accordingly, we find as a matter of fact that the alternatives available during the damages period either infringed Elkay's patents or were not readily

or commercially available in the United States. Thus, Elkay has established the absence of noninfringing alternatives.

c. Manufacturing and Marketing Capacity

Elkay also proved that it had existing or potential manufacturing and marketing capacity to exploit the product demand satisfied by Ebco from August 1993 to the present. Dennis Scully ("Scully"), president of Elkay's Cordley- Temprite Division, testified that Elkay had the capacity to produce more than 300,000 Water Safe units per year. (Tr. 506-07). He also stated that Elkay's feed tube supplier, Guttenberg Industries, could manufacture 324,000 plastic feed tubes annually. (Tr. 507). In addition, should Elkay need additional feed tubes, it could create duplicate tooling and produce an additional 324,000 plastic feed tubes or 156,000 stainless steel feed tubes per year. (Tr. 508- 09). Moreover, in late 1990 or early 1991, Elkay acquired another plant capable of producing water coolers and could have produced at least 400,000 water coolers annually. (Tr. 509-10).

Elkay's damages expert, Michael Tate ("Tate"), a principal in the economics consulting group at A.T. Kearney, opined that Elkay had the capacity to manufacture 403,000 bottled water coolers annually. (Tr. 699). Tate also concluded that Elkay had the capacity to produce its actual units sold and any additional water coolers and/or no-spill adapters sold by Ebco. (Tr. 699-700). Thus, we find as a mater of fact that Elkay demonstrated the capacity sufficient to produce the additional no-spill units and water coolers sold by Ebco.

d. Amount of Profits Elkay Would Have Made Absent Infringement

At trial, Elkay presented two schemas for calculating lost profits. Under Scenario I, Elkay would be awarded lost profits on water cooler sales lost as a result of Ebco's infringing sales. The lost profits are calculated based on the annual market share for cooler sales achieved by Elkay in 1991, prior to Ebco's entry into the market with its WaterGuard adapters. It is assumed that Elkay would have maintained this market share throughout the period of infringement had it not lost the competitive advantage of being the only bottled water cooler supplier offering a no-spill adapter. The lost market share is measured by the difference between Elkay's actual achieved annual market share (PDX 383) and Elkay's 1991 market share. (PDX 423C). The number of units lost each year is then multiplied by the profit per unit. (PDX 423A).

Elkay also proposed and presented evidence to support a second lost profits calculation. Under Scenario II, Elkay would receive lost profits on all water coolers sold by Ebco with a WaterGuard adapter installed prior to shipment and on all water coolers shipped with a WaterGuard adapter during the damages period. For the following reasons, we reject Scenario II as speculative and adopt Scenario I.

As a matter of fact, we find that Elkay has established that the patented device drives bottled water cooler sales to some extent. Elkay introduced the Water Safe adapter primarily to enhance the sales of its bottled water coolers. (Tr. 102-03; PTX 108). After Elkay introduced the Water Safe in 1991, it achieved a 27.3% market share for bottled water coolers, a 40% increase over Elkay's 1990 market share. We agree with Katz that

the increase was attributable to the introduction of the Water Safe technology. (Tr. 108-09). In 1991, the Water Safe system was the only no-spill adapter offering its features. Subsequent to the introduction of the no-spill adapters, Elkay and Ebco have both enjoyed increased sales of water coolers sold with the Water Safe or WaterGuard adapters. (PDX 408).

Moreover, Ebco and Elkay both promote the use of their no-spill adapters for use in conjunction with bottled water coolers. (Tr. 567; e.g. PDX 322-324, 333). Furthermore, Sands testified that the ultimate consumers want the cooler in combination with the adapter and, therefore, distributors are likely to buy the adapter and water cooler from one source based on economic and inventory considerations. (Tr. 219-20). Significantly, Burrows testified that Ebco would lose some market share of cooler sales if it could not offer the no-spill adapter. (Tr. 1060).

Based on the foregoing evidence and testimony, we find that Elkay has established its underlying premise that no-spill adapters drive cooler sales to some extent. Nevertheless, the evidence also demonstrated that, in addition to adapters, water cooler sales are driven by many other factors such as service, product quality, price, customer relationships, design, competition, and product features. (E.g. Tr. 171, 916, 2556-57, 2560-64, 2573, 2653-59, 2675, 2693-94, 2727-32). Thus, we will not award Elkay lost profits on all water coolers sold by Ebco with a WaterGuard adapter installed prior to shipment and on all water coolers shipped with a WaterGuard adapter. (Scenario II).

e. Lost Profit Award

Because we find that Elkay established with a reasonable probability that adapters drive cooler sales to some extent, we award Elkay lost profits based on the its 1991 market share of water cooler sales (Scenario I), the first year the Water Safe no-spill adapter was available. Under this Scenario, it is assumed that absent Ebco's infringement, Elkay would have been able to maintain the market share gained by its exclusive sale of the no-spill technology throughout the damages period. (Tr. 3659). Elkay has established the background for Scenario I with the requisite specificity. Moreover, "[a]ny doubts regarding the calculatory precision of the damage amount must be resolved against the infringer." Kaufman Co., Inc., 926 F.2d at 1142.

In 1991, Elkay's market share measured by water cooler sales jumped to 27.3% with the introduction of the Water Safe system. When Ebco introduced its WaterGuard adapters in 1992, a no-spill device with the patented features had never before been available. Indeed, the market for no-spill products has grown every year since 1991. (PDX 408). As the sole source for the claimed invention, Elkay's market share presumably would have continued to grow absent Ebco's infringing sales. Elkay's market share, however, began to decrease following the introduction of Ebco's infringing products. (Tr. 691-692; PDX 383). Moreover, Ebco offered its Water Guard device at a highly discounted price which prevented Elkay from further increasing its market share. (Tr. 564; PDX 403).

We find that Tate's expert report (PTX 34, 35, 35A) is credible, well supported, and equitable. Tate offered extensive support for the calculations of lost profits. (PTX

35A, see also PDX 400, 423, 423A-E). In addition, he based his calculations on the best available data and calculated his figures conservatively. (Tr. 695, 3692). Based on the trial testimony, we find that Tate's testimony was more credible that the testimony of Kinrich, Ebco's damages expert. Thus, we adopt Tate's calculations, methodology, and justification for the award under Scenario I. (Tr. 675-830, 3658-3696; PDX 423, 423A-E).

Accordingly, Ebco must pay $5,612,837 for lost profits as calculated below.

Elkay's Lost Bottled Water Cooler Sales

	1993	1994	1995	1996	1997	Total
Elkay's 1991 market share	27.3%	27.3%	27.3%	27.3%	27.3%	
Elkay's actual achieved water cooler market share	16.6%	16.7%	14.0%	20.4%	20/4%	
Lost market share	10.7%	10.6%	13.3%	6.9%	6.9%	
Adjustment[3]	1.3%	1.3%	1.3%	1.4%	1.3%	
Adjusted lost market share	9.4	9.3%	12.0%	5.6%	5.6%	
Industry sales	556.497	669,449	657,649	730,504	365,252	
Elkay's lost sales from 8/20/93 to 6/30/97	19,061	62,259	78,918	40,908	20,454	221,660

[3] In 1992, Elkay's market share fell from 27.3% to 22.7%. Tate testified that 1.3% of this 4.6% decrease was attributable to Ebco's sale of 21,596 high capacity water coolers to Perrier in 1992. (Tr. 3662-65). The remaining market share drop is attributable to Elkay's differentiated product advantage being taken away by Ebco's infringing sales. (Tr. 2665). Accordingly, the lost market share figure is reduced by 1.3% to reflect the Ebco-Perrier transaction.

Elkay's Lost Profits

	1993	1994	1995	1996	1997	Total
Price per unit of bottled water coolers sold with Water Safe adapter	$169.00	$169.00	$170.00	$161.00	1612.00	$158.00
Elkay's cost per water cooler unit	145.49	138.68	157.49	139.54	148.50	
Adjust-ment[4]	2.09	4.33	6.43	6.51	6.57	
Profit per unit	$25.60	$34.65	$18.94	$27.97	$16.07	
Lost bottled water cooler units (see above)	19,061	62,259	78,918	40,908	20,454	221,600
Lost Profits	$487,962	$2,157,275	$1,494,707	$1,144,197	$328,696	5,612,837

3. Damages Award

For all the foregoing reasons, we find that Elkay is entitled to the profits lost on 221,600 bottled water coolers, sales that Elkay would have made but for Ebco's infringement, and a reasonable royalty of $1.50 for each of the 1,136,165 WaterGuard adapters sold by Ebco through June 30, 1997. (PDX 423, 423B, 423C). Elkay is awarded $1,704,249 for reasonable royalties and $5,612,837 for lost profits. In addition, Elkay is entitled to a reasonable royalty of $1.50 for each WaterGuard adapter sold and its lost profits as calculated above for the period from July 1, 1997 to the date of the judgment order. Elkay is also entitled to prejudgment interest for the period from August

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[4] The adjustment takes into account the price that Elkay charged for the Water Safe unit before Ebco entered the market less the price Elkay actually charged. (Tr. 695).

20, 1993 until the date of the judgment order. The prejudgment interest is calculated with the 90-day United States Treasury Bill rate. For the period of August 20, 1993 to June 30, 1997, the prejudgment interest is $776,899. (Tr. 707; PTX 34, 35, 35A, PDX 423). Accordingly, Elkay is awarded $8,093,985 for the period from August 23, 1993 to June 30, 1997.

IV. INJUNCTION

Pursuant to 35 U.S.C. § 283, Elkay also seeks a permanent inunction against Ebco's further manufacture, use, offer for sale, and sale of the infringing WaterGuard I, II, and III adapters. The district court has the discretion to grant an injunction to prevent the violation of any right secured by a patent. Black & Decker (U.S.), Inc. v. Home Prod. Mktg., 929 F.Supp. 1114, 1121 (N.D.Ill.1996) (citing W.L. Gore & Assoc., Inc. v. Garlock, Inc., 842 F.2d 1275, 1281 (Fed.Cir.1988) and 35 U.S.C. § 283. Because we have found that Ebco's adapters infringe the asserted patents and that Ebco has not presented a specific reason to deny the injunction, we will issue the requested injunction. See Id. In order to accommodate Ebco's customers and any orders already in progress, the injunction will become effective at 12:01 am on August 1, 1998.

V. CONCLUSION

For all the foregoing reasons, we find that Elkay has established by a preponderance of the evidence that Ebco infringed the asserted claims of the '531 and '855 patents. In addition, we find that Ebco failed to prove by clear and convincing evidence that the asserted patents are invalid and unenforceable. Accordingly, Ebco is ordered

to pay the reasonably royalties, lost profits, and prejudgment interest as described in this Memorandum Order and Opinion. For the period from August 20, 1993 to June 30, 1997 Elkay is awarded:

Reasonable royalties	$1,704,249
Lost Profits	$5,612,837
Prejudgment interest	$ 776,899
TOTAL	$8,093,985

Ebco Manufacturing Company and Ebtech Corporation are also hereby permanently enjoined from manufacturing, using, selling, and offering for sale its accused WaterGuard I, II, and III no-spill adapters. In order to accommodate Ebco's customers and any orders already in progress, this injunction becomes effective at 12:01 am on August 1, 1998.

Elkay must file a petition for the reasonable royalties, lost profits, and prejudgment interest accrued from July 1, 1997 to the date of the judgment order by August 14, 1998.

It is so ordered.

Wayne R. Andersen
United States District Judge

Dated: July 10, 1998

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

Elkay Manufacturing Company,	)
Plaintiff,	) C. A. No. 93C5106
v.	)
Ebco Manufacturing Company	)
and Ebtech Corporation,	)Judge W. R. Andersen
Defendants.	)

ORDER AMENDING
THE JUDGMENT AND OPINION OF JULY 10, 1998

The Judgment and Opinion, both dated July 10, 1998, are hereby amended as follows:

1. The permanent injunction, to become effective at 12:01 a.m. on August 1, 1998, is amended to enjoin Ebco Manufacturing Company (by change of name now Oasis Corporation) and Ebtech Corporation, and their respective officers, agents, servants, employees, attorneys, and those persons in active concert or participation with them who receive actual notice of this order by personal service or otherwise, from infringing claims 1-5 and 7-10 of Elkay's '531 patent and claims 1-3 of Elkay's '855 patent by manufacturing, using, selling and offering for sale the accused WaterGuard I, II and III no-spill adapters, or any colorable imitations thereof.

2. The period for calculating damages extends from July 1, 1997, to August 1, 1998. Accordingly, Elkay is directed to file a petition for the reasonable royalties, lost profits and prejudgment interest accrued from July 1, 1997, to August 1, 1998, by August 14, 1998.

3. The Memorandum Opinion and Order dated July 10, 1998, is corrected and amended as follows:

Page	Line	Correction
16	20	Change "WaterSafe" to – WaterGuard--
44	19	Change "we find that Elkay has not demonstrated" to --we find that Ebco has not demonstrated--

IT IS SO ORDERED.

Date: July 30, 1998

Wayne R. Andersen
United States District Judge

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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

Elkay Manufacturing Company,
Plaintiff,

v. Civil Action No. 93 C 5106

Ebco Manufacturing Company (by change of name, Oasis Corporation) and Ebtech Corporation, Judge Wayne R. Andersen

Magistrate Judge Pallmeyer

Defendants.

SUPPLEMENTAL JUDGMENT

IT IS HEREBY ORDERED AND ADJUDGED that the July 10, 1998 Judgment, which awarded Elkay $1,704,249.00 in reasonable royalties, $5,612,837.00 in lost profits, and $776,899.00 in prejudgment interest for a total of $8,093,985.00 to cover the period of infringement between August 20, 1993 and June 30, 1997, is supplemented by a amount equal to $3,397,100.92, to cover the period of infringement between July 1, 1997 and July 31, 1998, and the adjustments set forth below. The supplemental award of $3,397,100.92 consists of an additional award of $980,335.00 in reasonable royalties, $2,165,022.00 in lost profits, $569,064.00 in prejudgment interest, and $71,900.08 in costs (granted in an order dated September 10, 1998), less a $350,958.00 correction due to revised accounting reports and less an off-set of $38,262.16 pursuant to an order dated March 28, 1996.

IT IS SO ORDERED:

Date: February 4, 1999 Judge Wayne R. Andersen

D 1

United States Court of Appeals for the Federal Circuit

98-1596, 99-1276

ELKAY MANUFACTURING COMPANY,
Plaintiff-Appellee,
v.

EBCO MANUFACTURING COMPANY
and EBTECH CORPORATION,
Defendants-Appellants.

ORDER

United States Court of Appeals for the Federal Circuit

ORDER

A combined petition for rehearing and suggestion for rehearing en banc having been filed by the APPELLEE, and a response thereto having been invited by the court and filed by the APPELLANTS, and the petition for rehearing having been referred to the panel that heard the appeal, and thereafter the suggestion for rehearing en banc and response having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the suggestion for rehearing en banc be, and the same hereby is, DENIED.

The mandate of the court will issue on November 12, 1999.

FOR THE COURT,

Jan Horbaly
Clerk

Dated: November 5, 1999

cc: DONALD R. DUNNER
BERTON S. SHEPPARD

ELKAY MANUF V EBCO MANUF, 98-1596, 99-1276
(DCT – 93-CV-5106)

Note: Pursuant to Fed. Cir. R. 47.6, this order is not citable as precedent. It is a public record.

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UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

98-1596, 99-1276

ELKAY MANUFACTURING COMPANY,

Plaintiff-Appellee,

v.

EBCO MANUFACTURING COMPANY and EBTECH CORPORATION,

Defendants-Appellants.

JUDGMENT

ON APPEAL from the UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS

In CASE NO(S). 93-CV-5106

This CAUSE having been heard and considered, it is

ORDERED and ADJUDGED:

REVERSED and VACATED.

ENTERED BY ORDER OF THE COURT

DATED SEP 15, 1999 JAN HORBALY, CLERK

ISSUED AS A MANDATE: NOVEMBER 12, 1999

E-1

07/898570

JUL 15 1992 PAT. & TRADEMARK OFF

PATENT
Attorney Docket No. 47741

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#3 Fte Amdt. B
J. Dorsey
8-7-92

In re Application of:

Henry E. Baker et al.

Serial No.

Group Art Unit:

Filed:

Examiner: Sonya Dorsey
8-7-92

For: Liquid Container Support and Hygienic Liquid Dispensing System

PRELIMINARY AMENDMENT

Honorable Commissioner of
Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

Please amend this application, effective as of its filing date, as follows:

IN THE CLAIMS:

Cancel claim 1.

Add new claims 16-25:

B
C1

~~16. A liquid container support and hygienic delivery system for dispensing drinking water or other potable liquid into a dischargeable reservoir open at its upper end and housed within a cabinet from an inverted container having an internal liquid confining surface defined by a substantially rigid, generally cylindrical body with a radially inwardly directed downwardly sloping shoulder portion merging into a generally cylindrical depending neck defining an opening closed by a cap at least partially surrounding said neck and~~

BEST AVAILABLE COPY

In re Mandarino et al.
Serial No.

~~having an internal recess therein including a sleeve portion~~ and a sealing plug portion connected thereto, comprising, in combination,

mounting means adapted to fit on the upper portion of said cabinet and defining an annular ring for supporting said sloping shoulder portion of said inverted container thereon, said mounting means also defining a tapered entry portion extending downwardly and inwardly from said annular ring for receiving said inverted container neck and cap therein, said entry portion having a lower end and a length greater than that of said container neck and said coaxial cap when said inverted container shoulder portion is supported on said annular ring,

means for sealingly closing said open upper end of said reservoir, an upstanding probe element dimensioned to penetrate into said container neck to provide a hygienic flow path for delivering liquid from said inverted container into said reservoir and admitting air into said container to displace the liquid delivered therefrom,

means for rigidly supporting said upstanding probe element,

said upstanding probe element having a length greater than said recess in said cap and being disposed and adapted for entry into said recess to axially separate said plug from said sleeve when said container is inverted and lowered onto said mounting means with said sloping shoulder portion ~~supported by said annular ring in order to permit the~~

discharge of liquid from said container and admission of air into said container,

and said upstanding probe element being disposed and dimensioned to hold said plug portion free of contact with said sleeve portion, and said internal liquid confining surface, said cylindrical body, said sloping shoulder portion and said depending neck of said container when said sloping shoulder portion is supported on said annular ring of said mounting means.

17. A system as defined in claim 16 wherein said upstanding probe element is in the form of a feed tube including an internal bore and a radial inlet communicating therewith, said inlet being spaced from the tip end of said feed tube by a distance greater than the internal depth of said plug portion of said recess.

18. A system as defined in claim 16 wherein said plug portion is formed with internal gripping means therein and said probe element is formed with complementary external gripping means for securing said plug on said probe element when said probe element is inserted in said recess and said plug portion is axially separated from said sleeve portion.

19. A system as defined in claim 18 wherein said internal gripping means includes a radially inwardly projecting annular lip formed on said plug portion and said

external gripping means includes an annular groove formed in the tip portion of said probe element.

20. A system as defined in claim 16 wherein said plug portion is dimensioned to sealingly fit within said sleeve portion when said inverted container is lifted off said support ring and said probe element is withdrawn from said recess.

21. A system as defined in claim 16 wherein said mounting means includes a portion adapted to be raised above said cabinet by downwardly extending side walls and includes internal ribs interconnecting said side walls and said tapered entry portion.

22. A liquid container support and hygienic delivery system for dispensing drinking water or other potable liquid into a dischargeable reservoir open at its upper end and housed within a cabinet from an inverted container having a substantially rigid body with a radially inwardly directed downwardly sloping shoulder portion merging into a generally cylindrical depending neck defining an opening closed by a cap at least partially surrounding said neck and having an internal recess therein including a sleeve portion and a sealing plug portion connected thereto, comprising, in combination,

~~mounting means adapted to fit on the upper portion of~~ said cabinet and defining an annular ring for supporting said sloping shoulder portion of said inverted container thereon, said mounting means also defining a tapered entry portion extending downwardly and inwardly from said annular ring for receiving said inverted container neck and cap therein, said entry portion having a lower end and a length greater than that of said container neck and said coaxial cap when said inverted container shoulder portion is supported on said annular ring,

an elongated feed tube having a tip end, a substantially hollow tubular body portion and a base portion including mounting means for orienting said feed tube substantially vertically in said tapered entry portion with said tip end pointed upwardly for admitting air into and dispensing drinking water or other potable liquid from within said inverted substantially rigid container,

said feed tube body portion being dimensioned for close fitting sealing relation with the inside diameter of said cap recess to prevent leakage therebetween when said feed tube is inserted into and through said recess,

said feed tube having an internal bore and at least one radial opening communicating therewith, said radial opening being spaced from the tip end of said feed tube by a distance that is greater than the internal depth of said plug cavity, said radial opening and said bore defining ~~fluid passage means for dispensing liquid from said~~

~~container and for admitting air into said container to~~ displace said dispensed liquid and

said fluid passage means being unobstructed by internally or externally disposed valving to permit the free flow of liquid and air therethrough.

23. A liquid container support and hygienic liquid dispensing system as defined in claim 22 wherein said feed tube tip end has a reduced cross sectional diameter for insertion into said plug cavity and said tip end has complementary external gripping means for cooperating with said internal gripping means of said plug cavity for securing said plug on said feed tube tip when said feed tube is inserted into and through said recess.

24. A liquid container support and hygienic liquid dispensing system as defined in claim 23 wherein said internal gripping means includes a radially inwardly projecting annular lip formed on said plug and said external gripping means includes an annular groove formed in the tip portion of said feed tube.

25. A liquid container support and hygienic liquid dispensing system as defined in claim 24 wherein said feed tube is formed with a tapered annular ramp portion adjacent said groove for guiding said tip portion into said annular ~~lip on said plug~~

In re Mandarino et al.
Serial No.

REMARKS

The present application is a continuation of applicants' copending parent application Serial No. 684,642 filed April 12, 1991, which is a continuation-in-part of applicants' copending grandparent application Serial No. 257,627 filed October 14, 1988, now abandoned.

Concurrently with the filing of the present application as a 37 CFR 160 continuation application and the simultaneous filing of this Preliminary Amendment, all of the original claims 1-15 are being canceled and replaced by new claims 16-25 submitted herewith in this Preliminary Amendment.

Favorable consideration and the allowance of the present application is respectfully requested. If the Examiner has any questions concerning this Amendment or the application, he is requested to call applicants' undersigned attorney.

Signed at Chicago, in the County of Cook and State of Illinois this 15th day of June, 1992.

Respectfully submitted,

By _____
Berton Scott Sheppard, Reg. No. 20922
One of the Attorneys for Applicant(s)
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Two Prudential Plaza, Suite 4900
180 North Stetson
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UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
07/ . ,270	06/15/92	BAKER	H	47741

EXAMINER
JACYNA, J

ART UNIT	PAPER NUMBER
2403	4

DATE MAILED: 11/10/92

BC: SCOTT SHEPPARD
LL: WOIT AND MAYER
TAL CENTRIAL PLAZA, SUITE 4900
[illegible] TH STETSON
[illegible] IL 60601-6780

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 6/15/92 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.
2. ☒ Notice of Art Cited by Applicant, PTO-1449.
3. ☐ Information on How to Effect Drawing Changes, PTO-1474.
4. ☒ Notice re Patent Drawing, PTO-948.
5. ☐ Notice of Informal Patent Application, Form PTO-152.
6. ☐ _____

Part II SUMMARY OF ACTION

1. ☒ Claims 16-25 are pending in the application.
   Of the above, claims _____ are withdrawn from consideration.
2. ☒ Claims 1-15 have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 16-25 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☒ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable. ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed on _____, has been ☐ approved. ☐ disapproved (see explanation).
12. ☐ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

1. Claims 16-25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 28-31 as proposed 11/2/92 of copending application Serial No. 07/684597. Although the conflicting claims are not identical, they are not patentably distinct from each other because every limitation contained in claims 16 and 22 is paraphrased in claim 28 of the '597 application and the last four lines of the '597 claim 28 contains the additional limitation of the tapered portion isolating the container neck. Therefore, it would have been obvious that since claims 16 and 22 are broader than the claims presented in the '597 application, they could have been prosecuted in the '597 application.

This is a *provisional* obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The obviousness-type double patenting rejection is a judicially established doctrine based upon public policy and is primarily intended to prevent prolongation of the patent term by prohibiting claims in a second patent not patentably distinct from claims in a first patent. *In re Vogel*, 164 USPQ 619 (CCPA 1970). A timely filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(b) would overcome an actual or provisional rejection on this ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 C.F.R. § 1.78(d).

2. Claims 18, 19 and 21-25 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 18 and 23 are indefinite because the plug portion (plug cavity in claim 23) is inferentially included as part of the claimed combination. Claims 18 and 23 call for both the probe element (feed tube in claim 23) and the plug portion to have gripping means wherein the plug is positively secured to the probe element. Note that in the base claims 16 and 22 the container cap and plug portion is clearly not part of the claimed combination. Claims 18 and 23 are also indefinite because the 'gripping means' does not possess the necessary function. It is suggested that -- means for gripping -- be substituted.

In claim 22, 'said plug cavity' on lines 36 and 37 lacks an antecedent basis because only a plug portion has been previously defined. On lines 19 and 20, 'said coaxial cap' lacks an antecedent basis because no coaxial cap has been defined.

Claim 21 is incorrect because the mount 25 has a single inner annular wall 27 which is claimed as a 'tapered entry portion' and a single outer annular wall 25 with spoke like ribs connecting the tapered entry 27 and the outer annular wall 25. However, claim 21 calls for a plurality of 'side walls' wherein only the one annular wall 25 is disclosed.

3. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that

the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

4. Claims 16-20 and 22-25 are rejected under 35 U.S.C. § 103 as being unpatentable over Krug in view of Savage.

Krug discloses a potable liquid 'container supplement and hygienic delivery system' including a 'cap' 12 which includes a portion which surrounds the neck as disclosed on page 2, left column, line 33, and an 'internal recess' as at 13 in fig. 3. Krug further discloses a 'mounting means' 5 with an upper annular ring at the top of a tapered portion, a 'means for sealingly closing' 18, an 'upstanding probe element' 19 and a 'means for rigidly' 22 wherein the plug 14 is separated from the cap when probe 19 is inserted. Krug does not disclose the probe element 19 to be adapted to hold the plug free of contact with the container and cap. However, Savage teaches another probe element 66 which receives and holds a plug 58 in a potable drink dispenser for the purpose of enabling the dispenser to be resealed when it is desired to transfer the dispenser to a new location or to store a partially full dispenser. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of Krug with a feed tube which is able to hold the plug as, for example, taught by Savage, in order to enable the dispenser to be resealed when it is desired to transfer the dispenser to a new location or to store a partially full dispenser.

In regard to claim 17, Savage teaches the use of a single radial inlet 88. In regard to claim 18, Savage teaches the use of 'internal gripping means' 60 and 'external gripping means' 98 in order to hold the plug on the fill tube. In regard to claim 25, Savage teaches a guidable feed tube with a ramp portion 103.

5. Claim 21 is rejected under 35 U.S.C. § 103 as being unpatentable over Krug in view of Savage as applied to claim 16 above, and further in view of Baron.

Krug teaches a wire frame support 5 for an inverted container with an upper tapered entry portion which is connected to vertical left and right 'side walls' as shown in fig. 1, but does not disclose an internal interconnecting rib. However, the use of internal interconnecting ribs on wire frames which hold inverted bottles in order to provide extra support for the frame is well known in the art as shown by rib 54 in the Baron reference. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the apparatus of Krug with an additional support rib at

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the top of the vertical side wall portions as, for example, taught by Baron, in order to provide extra support for the frame.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patnaude/127 teaches the use of a solid side wall upper inverted container support 18. Ula/633 teaches the use of an annular inverted container mount with a tapered entry and internal connecting ribs but with a file date which is after the priority date of 10/14/88 for the mounting means 25 of the instant invention. Ula/823 teaches another inverted bottle dispenser with a removable plug. Patnaude/437 teaches the use of a tapered sealing ring 11. Cole teaches the use of an annular sealing ring h on a tapered inverted container support. Pogue teaches another tapered inverted container support with a puncturing fill tube. Figure 13 of Steiner teaches a removable plug 230 and fill tube 285 for a liquid dispenser. Schroer teaches the use of a tapered annular ring 25 for supporting an inverted container.

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An inquiry concerning this communication should be directed to Casey Jacyna at telephone number 703-308-1308.

J. Casimer Jacyna

Patent Examiner

Art Unit 2403

Jacyna
November 12, 1992

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GROUP 240

Attorney Docket No. 47741

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Henry E. Baker et al.

Serial No. 07/898,570 Group Art Unit: 2403

Filed: June 15, 1992 Examiner: C. Jacyna

For: Liquid Container Support and Hygienic Liquid Dispensing System

AMENDMENT

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

In response to the Office Action dated November 18, 1992, please enter the following amendments and consider the following remarks.

IN THE CLAIMS:

Amend claims 16-25 as follows:

16. (Amended) A liquid container support and hygienic delivery system for dispensing drinking water or other potable liquid (into) to a predetermined maximum liquid level in a dischargeable reservoir open at its upper end and housed within a cabinet from an inverted unpressurized container having an internal liquid confining surface defined by a substantially rigid, generally cylindrical body with a radially inwardly directed downwardly sloping shoulder portion merging into a generally cylindrical

depending neck defining an opening closed by a coaxial cap (at least partially) circumferentially surrounding at least an outer axial portion of said neck and having an internal recess therein including a hollow tubular sleeve portion and a sealing plug portion defining a closed end with a central cavity having internal gripping means therein connected thereto, comprising, in combination,

removable mounting means adapted to fit on the upper portion of said cabinet and defining an annular ring for supporting said sloping shoulder portion of said inverted container thereon, said removable mounting means also defining a tapered entry portion having a substantially closed inner wall extending downwardly and inwardly from said annular ring for receiving said (inverted) depending container neck and said coaxial cap therein, said entry portion having a (lower) substantially closed bottom end and a length greater than that of said depending container neck and said coaxial cap when said inverted container shoulder portion is supported on said annular ring,

sealing means carried by said removable mounting means for sealingly closing said open upper end of said reservoir,

an upstanding (probe element) feed tube dimensioned to penetrate into said hollow tubular sleeve portion of said coaxial cap and said container neck to provide a hygienic flow path for delivering liquid from said inverted unpressurized container into said reservoir to said

16

predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container to displace the liquid delivered therefrom, said feed tube having upper and lower end portions,

{ } means carried by said removable mounting means for rigidly supporting said upstanding (probe element,) feed tube with said upper end projecting upwardly from said bottom end of said entry portion and said lower end depending downwardly from said bottom end of said entry portion of said removable mounting means into said reservoir to define said predetermined maximum liquid level,

C1

[ ] said (upstanding probe element) upper end of said feed tube having a length greater than said recess in said coaxial cap and being disposed and adapted for entry into said recess to axially separate said cap plug portion from said hollow tubular sleeve portion when said container is inverted and lowered onto said mounting means with said sloping shoulder portion of said inverted container supported by said annular ring in order to permit the discharge of liquid from said container into said reservoir to said predetermined maximum liquid level and admission of air from said reservoir above said liquid and into said container,

[ ] and said upstanding (probe element) feed tube being disposed and dimensioned to hold said cap plug portion free of contact with said hollow tubular sleeve portion(,) of

17

said coaxial cap and said internal liquid confining surface[, said cylindrical body, said sloping shoulder portion and said depending neck] of said inverted container when said sloping shoulder portion is supported on said annular ring of said mounting means.

17 ~~16~~. (Amended) A system as defined in claim 1 ~~16~~ wherein said [upstanding probe element is in the form of a] feed tube [including] includes an internal bore and a radial inlet communicating therewith, said inlet being spaced from the tip end of said feed tube by a distance greater than the internal depth of said internal cavity of said plug portion of said [recess] coaxial cap.

3 ~~18~~. (Amended) A system as defined in claim 1 ~~16~~ wherein [said plug portion is formed with internal gripping means therein and said probe element] said upper end of said feed-tube is formed with complementary external gripping means for securing said plug on said [probe element] feed tube when said [probe element] feed tube is inserted in said recess of said coaxial cap and said plug portion is axially separated from said hollow tubular sleeve portion.

4 ~~19~~. (Amended) A system as defined in claim 3 ~~17~~ wherein said internal gripping means includes a radially inwardly projecting annular lip formed [on] in said plug [portion]

18

cavity and said external gripping means includes an annular groove formed in [the] said tip portion of [said probe element] said upper end of said feed tube.

5 26. (Amended) A system as defined in claim 1 wherein said plug portion is dimensioned to sealingly [fit within said] interfit with said hollow tubular sleeve portion when said inverted container is lifted off said support ring and said [probe element] feed tube is withdrawn from said recess of said coaxial cap.

6 27. (Amended) A system as defined in claim 1 wherein said removable mounting means includes a [portion adapted to be raised above said cabinet by] downwardly extending outer side wall[s] adapted to engage said cabinet and [includes] internal ribs interconnecting said outer side wall[s] and said downwardly and inwardly extending closed inner wall of said tapered entry portion.

7 28. (Amended) A liquid container support and hygienic delivery system for dispensing drinking water or other potable liquid [into] to a predetermined maximum liquid level in a dischargeable reservoir open at its upper end and housed within a cabinet from an inverted unpressurized container having a substantially rigid body with a radially inwardly directed downwardly sloping shoulder portion

19

merging into a generally cylindrical depending neck defining an opening closed by a coaxial cap [at least partially] circumferentially surrounding at least an axial outer portion of said neck and having an internal recess therein including a hollow tubular sleeve portion and a sealing plug portion defining a closed end with a central cavity having internal gripping means therein connected thereto, comprising, in combination,

[ ] removable mounting means adapted to fit on the upper portion of said cabinet and defining an annular ring for supporting said sloping shoulder portion of said inverted container thereon, said removable mounting means also defining a tapered entry portion extending downwardly and inwardly from said annular ring for receiving said [inverted] depending container neck and said coaxial cap therein, said entry portion having a [lower] substantially closed bottom end and a length greater than that of said depending container neck and said coaxial cap when said inverted container shoulder portion is supported on said annular ring,

[ ] an elongated feed tube having a tip and, a substantially hollow tubular body portion and a base portion including [mounting] support means for orienting said feed tube substantially vertically in said tapered entry portion with said tip end pointed upwardly for admitting air into and dispensing drinking water or other potable liquid from

In re Baker et al.
Serial No. 07/898,570

within said inverted substantially rigid unpressurized container,

[i] said feed tube body portion being dimensioned for close fitting sealing relation with the inside diameter of said internal cap recess to prevent leakage therebetwean when said feed tube is inserted into and through said recess,

[j] said hollow feed tube having an internal bore and at least one radial opening communicating therewith, said radial opening being spaced from (the) said tip end of said feed tube by a distance that is greater than the internal depth of said plug cavity, said radial opening and said bore defining fluid passage means for dispensing liquid from said container into said reservoir up to said predetermined liquid level and for admitting air from said reservoir above said liquid level into said container to displace said dispensed liquid and

[k] said fluid passage means being unobstructed by internally or externally disposed valving to permit the free flow of liquid and air therethrough.

8~~5~~. (Amended) A liquid container support and hygienic liquid dispensing system as defined in claim ~~1~~ 7 wherein said feed tube tip end has a reduced cross sectional diameter for insertion into said plug cavity and said tip end has complemantary external gripping means for cooperating with said internal gripping means (of) in said plug cavity for

21

securing said plug on said feed tube tip when said feed tube is inserted into and through said internal recess of said coaxial can.

9 24. (Amended) A liquid container support and hygienic liquid dispensing system as defined in claim ~~23~~ 8 wherein said internal gripping means includes a radially inwardly projecting annular lip formed (on) in said plug cavity and said external gripping means includes an annular groove formed in the tip portion of said feed tube.

10 25. (Amended) A liquid container support and hygienic liquid dispensing system as defined in claim ~~24~~ 9 wherein said feed tube tip is formed with a tapered annular ramp portion adjacent said groove for guiding said (tip portion into said) inwardly projecting annular lip (on) in said plug cavity into said annular groove.

REMARKS

The specification, claims and drawings have been carefully reviewed in light of the Office Action to which this Amendment is responsive. Claims 16-25 have now been amended and it is respectfully submitted that the Examiner's rejections based on: 1) obviousness-type double patenting; 2) indefiniteness under §112, second paragraph; and 3) obviousness under §103 as unpatentable over Krug in view of

22

Savage have been clearly obviated and/or overcome for the reasons set forth in more detail below.

1. The obviousness-type double patenting rejection is no longer applicable in view of the cancellation of claims 28-31 from applicants' copending application Serial No. 07/684,597, without prejudice to the prosecution of the subject matter thereof in the present continuation application.

2. The rejections of original claims 18, 19 and 21-25 under §112, second paragraph, as being indefinite have been obviated by the amendments to claims 16-25 submitted herewith. More particularly, the preamble of independent claims 16 and 22 has been amended to recite a "coaxial cap" and a "sealing plug portion defining a closed end with a central cavity having internal gripping means" to set forth the appropriate antecedent bases for dependent claims 18, 19 and 23-25. Claim 21 has also been extensively amended to clarify the location and disposition of the "downwardly extending outer side wall(s)" and said internal ribs interconnecting "said outer side wall(s) and said downwardly and inwardly extending closed inner wall of said tapered entry portion." These amendments should overcome the Examiner's objections to claim 21.

3. Reconsideration and withdrawal of the Examiner's rejection of claims 16-20 and 22-25 under 35 U.S.C. §103 as being unpatentable over Krug in view of Savage is

respectfully requested. At the outset, the Examiner will appreciate that Krug discloses a liquid dispensing apparatus for a pressurized beer bottle (see Col. 1, ll. 5 and 6 and Col. 2, ll. 53 and 54) which employs an air check valve 28 and a faucet valve 16 connected via coil 15, pipe 17 and union 18 directly to the nozzle 19. Krug has no "reservoir open at its upper end" as recited in the preamble of independent claims 16 and 22 and, more importantly therefore, cannot possibly teach or suggest "sealing means carried by said removable mounting means for sealingly closing said open upper end of said reservoir" (claim 16) or a "flow path" (claim 16) or "fluid passage means" (claim 22) for "delivering liquid from said inverted unpressurized container (claim 16) into said reservoir up to said predetermined maximum liquid level and for admitting air from said reservoir above said liquid level into said container" as recited in the body of each of applicants' independent claims 16 and 22.

Savage, on the other hand, discloses a dispenser for a "bag-in-a-box" wherein a flexible bag collapses as liquid is drawn therefrom through a dispensing probe 66 having a check valve 86 therein. Thus, Savage, like Krug, has no "reservoir open at its upper end" as recited in the preamble of claims 16 and 22 and, like Krug, but for entirely different reasons, has no flow path (claim 16) or fluid passage means (claim 22) "for delivering liquid into said

reservoir up to said predetermined maximum level and for admitting air from said reservoir above said liquid level into said container" as defined in each of applicants' claims 16 and 22, as amended.

Furthermore, it is respectfully submitted that the concepts disclosed in Krug and Savage are so totally dissimilar that they teach away from one another and also from applicants' claimed invention. If there is any suggestion of combining these references, in the manner suggested by the Examiner, it must have been derived impermissibly from applicants' own disclosure. Accordingly, this rejection based on alleged "obviousness" should be withdrawn and, it is respectfully submitted, claims 16-20 and 22-55 should be allowed.

Claim 21 should also be allowed for the foregoing reasons and, in addition, this claim as now amended (including the amendments to independent claim 16) clearly and patentably distinguishes over the incompatible combination of Krug in view of Savage in view of Baren. None of these references teaches or suggests the structure or the relationships recited in claim 21, as now amended.

The other references mentioned, but not relied upon, by the Examiner in the Office Action have also been carefully considered. However, it is respectfully submitted that, like applicants' claimed invention, they are incompatible with the dispensing devices disclosed in either the valved

pressure dispensing device disclosed in Krug or the check-valved dispensing device for the "bag-in-a-box" disclosed in Savage. Accordingly, although these additional references may disclose certain piece-meal structure having some similarity to portions of applicants' claimed invention, it is clear, as the Examiner apparently realizes, that there is no teaching or suggestion in these references of how they might be combined with Krug and/or Savage to render applicants' claimed invention obvious. Finally, the Kienlien et al. reference (U.S. patent No. 4,523,698), which the present Examiner relied upon secondarily in applicants' copending application Serial No. 07/684,597, is so much less pertinent than the references cited contemporaneously by the Examiner in the present application, that it warrants no discussion beyond this brief mention.

The notice regarding the informalities and objections to the drawings is hereby acknowledged and corrected formal drawings will be submitted after receipt of the Notice of Allowance.

The application is otherwise believed to be in proper condition for allowance and an early Office Action to that effect is earnestly solicited. However, in the event the Examiner has any questions concerning the application or this amendment, he is respectfully invited and requested to call applicants' attorney at the number listed below.

In re Baker et al.
Serial No. 07/898,570

Signed at Chicago, in the County of Cook and State of Illinois on February 18, 1993.

Respectfully submitted,

By Berton Scott Sheppard

Berton Scott Sheppard, Reg. No. 20922
One of the Attorneys for Applicant(s)
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(312) 616-5600

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on February 18, 1993.

2-18-93 Linda R. Cameron
(date)

47741.AM2

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO
07/894,570	6/15/92	BAKER et al.	47741

EXAMINER
JACYNA

ART UNIT	PAPER NUMBER
2403	6

DATE MAILED:

EXAMINER INTERVIEW SUMMARY RECORD

All participants (applicant, applicant's representative, PTO personnel): 07/894,570

(1) MR. BERTON SCOTT SHEPPARD (2) _____

(3) MR. J. CASIMER JACYNA (PTO) (4) _____

Date of Interview 3/25/93

Type: ☐ Telephonic ☒ Personal (copy is given to ☐ applicant ☒ applicant's representative).

Exhibit shown or demonstration conducted: ☐ Yes ☒ No. If yes, brief description: _____

Agreement ☒ was reached with respect to some or all of the claims in question. ☐ was not reached.

Claim discussed: 16 and 22

Identification of prior art discussed: Haug and Lasonga.

Description of the general nature of what was agreed to if an agreement was reached, or any other comments: Examiner agreed that claims 16 and 22 are allowable over the prior art of record. Examiner noted that claims 28-31 were cancelled from application 07/684,597

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

Unless the paragraphs below have been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW (e.g., items 1 - 7 on the reverse side of this form). If a response to the last Office action has already been filed, then applicant is given one month from this interview date to provide a statement of the substance of the interview.

☒ It is not necessary for applicant to provide a separate record of the substance of the interview.

☐ Since the examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is deemed to fulfill the response requirements of the last Office action.

J. Casimer Jacyna
Examiner's Signature

PTOL-413 (REV. 1-88)

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Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	

ART UNIT	PAPER NUMBER
	7

DATE MAILED:

NOTICE OF ALLOWABILITY

07/896,570

PART I.

1. ☑ This communication is responsive to amendment of 2/23/93
2. ☑ All the claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in due course.
3. ☑ The allowed claims are 16-25
4. ☐ The drawings filed on _____ are acceptable.
5. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has [ ] been received. [ ] not been received. [ ] been filed in parent application Serial No. _____ filed on _____
6. ☐ Note the attached Examiner's Amendment.
7. ☐ Note the attached Examiner Interview Summary Record, PTOL-413.
8. ☑ Note the attached Examiner's Statement of Reasons for Allowance.
9. ☐ Note the attached NOTICE OF REFERENCES CITED, PTO-892.
10. ☐ Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449.

PART II.

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this letter. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

1. ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
2. ☐ APPLICANT MUST MAKE THE DRAWING CHANGES INDICATED BELOW IN THE MANNER SET FORTH ON THE REVERSE SIDE OF THIS PAPER.
   a. ☐ Drawing corrections are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper No. _____. CORRECTION IS REQUIRED.
   b. ☐ The proposed drawing correction filed on _____ has been approved by the examiner. CORRECTION IS REQUIRED.
   c. ☐ Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION IS REQUIRED.
   d. ☐ Formal drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

Attachments

- ☐ Examiner's Amendment
- ☐ Examiner Interview Summary Record, PTOL-413
- ☑ Reasons for Allowance
- ☐ Notice of References Cited, PTO-892
- ☐ Information Disclosure Citation, PTO-1449
- ☐ Notice of Informal Application, PTO-152
- ☐ Notice re Patent Drawings, PTO-948
- ☐ Listing of Deleted Claims
- ☐ Other

FILE COPY

The following is an Examiner's Statement of Reasons for Allowance:

In regard to claim 16, the prior art of record does not teach a container support with a removable mounting means and feed tube as claimed wherein a sealing means is provided for the upper end of the reservoir which sealing means is carried by the removable mounting means.

In regard to claim 22, the prior art of record does not teach a container support with a removable mounting means and feed tube as claimed wherein the feed tube has a passage means which both dispenses liquid from the container into the reservoir and admits air from the reservoir into the container. In the Krug reference the coil 15 is the reservoir which receives liquid from the container 6 through the feed tube 13. However, 15 is a closed coil that is always submerged by the liquid in the container 6. Therefore, feed tube 13 does not provide a means for admitting air. Note that Krug provides a separate conduit for exterior air 27/34 in order to relieve the vacuum in container 6.

In regard to the double-patenting rejection of 11/18/92, claims 28-31 were cancelled from application 07/684597.

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue

Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

An inquiry concerning this communication should be directed to Casey Jacyna at telephone number 703-308-1508.

HENRY J. RECLA
SUPERVISORY PATENT EXAMINER
ART UNIT 243

Jacyna
March 30, 1993

F-1

Oct. 13, 1936. P. P. KRUG 2,057,238

LIQUID DISPENSING APPARATUS

Filed Nov. 5, 1934

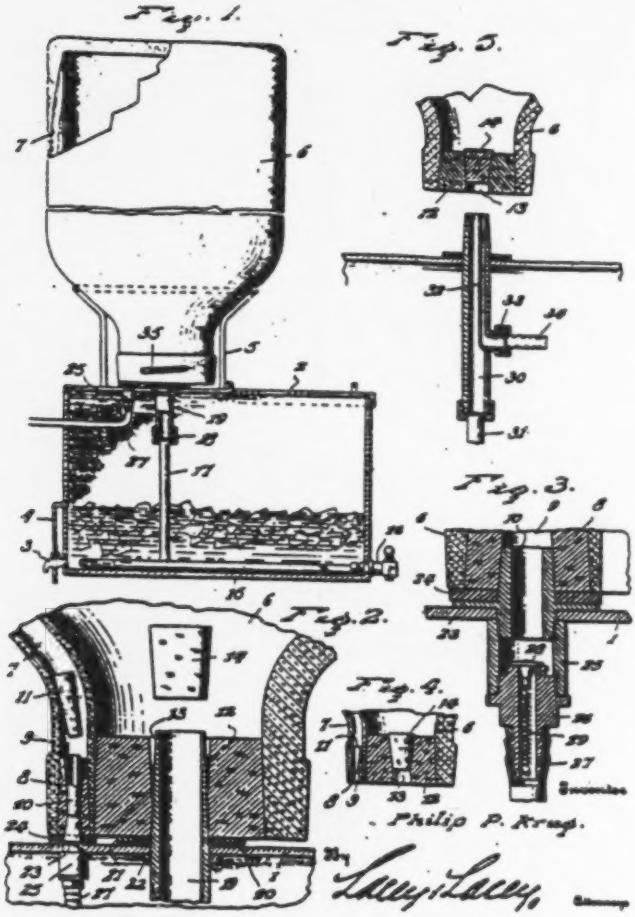
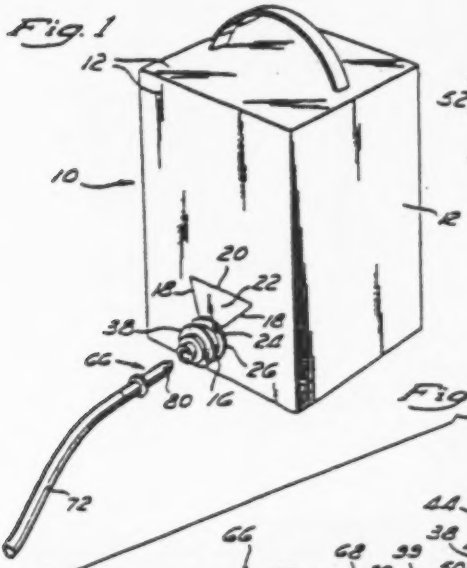


Fig. 1



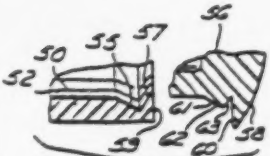
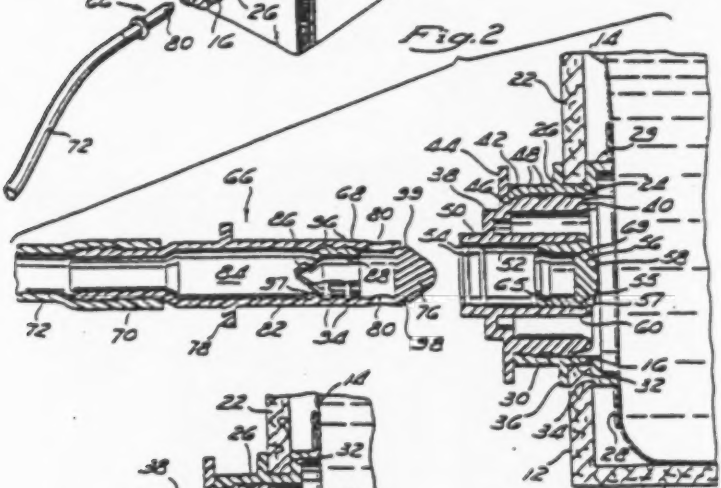


Fig. 4

Fig. 2



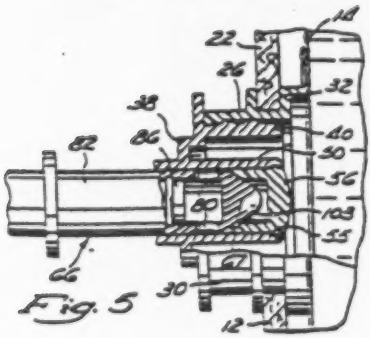


Fig. 5

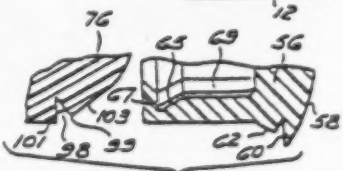


Fig. 3

Supreme Court, U.S.
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(2)

No. 99-1305

IN THE

Supreme Court of the United States

ELKAY MANUFACTURING COMPANY,

Petitioner,

v.

EBCO MANUFACTURING COMPANY
and EBTECH CORPORATION,

Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals For The Federal Circuit

BRIEF FOR RESPONDENTS IN OPPOSITION TO PETITION FOR A WRIT OF CERTIORARI

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March 6, 2000

340

QUESTION PRESENTED

Petitioner's statement of the question is argumentative in violation of Rule 14.1(a) of the Supreme Court Rules. Properly stated, the question presented is whether, after properly stating the governing law of claim construction, the Court of Appeals for the Federal Circuit correctly understood the specific facts set forth in the prosecution histories of the patents-in-suit and correctly applied the law of claim construction to the particular patents in this case when it interpreted the patent claims at issue to be limited to a no-spill adapter having a feed tube with a single flow path for both air and water.

RULE 29.6 STATEMENT

The Respondents, Ebco Manufacturing Company and Ebtech Corporation (now collectively "Oasis Corporation" by acquisition and name change), do not have any parent corporations or nonwholly-owned subsidiaries.

TABLE OF CONTENTS

Page

QUESTION PRESENTED i

RULE 29.6 STATEMENT ii

TABLE OF AUTHORITIES v

PRELIMINARY STATEMENT 1

COUNTERSTATEMENT OF THE CASE 2

I. The Patents and Their Prosecution Histories 2

A. The Patents 3

B. The Prosecution History 5

II. The Proceedings Below 9

A. The District Court Trial 9

B. The Federal Circuit's Decision 9

C. Post-Appeal Proceedings in the District Court 12

REASONS FOR DENYING THE WRIT 13

I. The Petition Fails to Allege a Question Worthy of Supreme Court Review 13

II. The Federal Circuit Correctly Interpreted the Claims to Exclude a No-spill Adapter That Has a Feed Tube Having Separate Flow Paths for Air and Water 14

A. The Federal Circuit Properly Interpreted the Claims Based On the Intrinsic Evidence of the Patents-in-suit 15

B. The Public is Entitled to Rely on the Petitioner's Unequivocal Statements Made to Obtain the Patents-in-suit 19

III. There Is No Longer a Case or Controversy Between the Parties 21

CONCLUSION 22

TABLE OF AUTHORITIES

FEDERAL CASES

Association of Community Org. For Reform Now v. Edgar,
99 F.3d 261 (7th Cir. 1996) 22

Bai v. L & L Wings, Inc.,
160 F.3d 1350 (Fed. Cir. 1998) 11, 20

CVI/Beta Ventures, Inc. v. Tura LP,
112 F.3d 1146 (Fed. Cir. 1997) 9, 11, 15, 17

Deakins v. Monaghan,
484 U.S. 193 (1988) 22

Digital Biometrics, Inc. v. Identix, Inc.,
149 F.3d 1335 (Fed. Cir. 1998) 20

Druhan v. American Mutual Life,
166 F.3d 1324 (11th Cir. 1999) 21, 22

Graham v. John Deere Co.,
383 U.S. 1 (1966) 18

Markman v. Westview Instruments, Inc.,
517 U.S. 370 (1996) 13, 18

Markman v. Westview Instruments, Inc.,
52 F.3d 967 (Fed. Cir. 1995),
aff'd, 517 U.S. 370 (1996) 9, 15, 17

Preiser v. Newkirk,
422 U.S. 395 (1975) 22

Ross v. Moffitt,
417 U.S. 600 (1974) 13

Spectrum Int'l, Inc. v. Sterilite Corp.,
164 F.3d 1372 (Fed. Cir. 1998) 9-11, 15,17, 20, 21

Standard Oil Co. v. American Cyanamid Co.,
774 F.2d 448 (Fed. Cir. 1985) 10, 11

Texas v. Mead,
465 U.S. 1043 (1984) 13

U.S. v. Johnston,
268 U.S. 220 (1925) 13

Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co.,
520 U.S. 17 (1997) 11, 18, 20

Woodward v. STP Corp.,
170 F.3d 1043 (11th Cir. 1999) 21, 22

U.S. CONSTITUTION

U.S. Const. art. III, § 2 ..... 2, 22

FEDERAL RULES

Supreme Court Rule 10 ..... 1, 13

Supreme Court Rule 14 i

FEDERAL STATUTES

35 U.S.C. § 103(a) 5

PRELIMINARY STATEMENT

This case does not include any issue worthy of consideration by the Supreme Court. The decision below does not conflict with the decision of this or any other court, involves no issues of constitutional law, and presents no important questions of federal law. This is merely a case of the Federal Circuit determining on the basis of the unique facts before it that the claim interpretation below contained reversible error and that, as a matter of law, the Respondents' products do not infringe the properly construed claims of the Petitioner's patents.

In light of the Petitioner's statements in the prosecution histories of the patents-in-suit, the Federal Circuit correctly interpreted the asserted claims to be limited to a no-spill adapter having a feed tube with a single flow path for both air and water. More specifically, the Federal Circuit correctly found that in an effort to distinguish the prior art references cited by the Patent Examiner during prosecution of the patents-in-suit, the Petitioner disavowed an interpretation of the asserted claims that would have included a feed tube having separate flow paths for air and water. Because the feed tubes in the Respondents' no-spill adapters have separate flow paths for air and water, the Federal Circuit correctly held that, as a matter of law, the Respondents' adapters do not infringe the asserted claims.

Moreover, the petition is facially deficient because it fails to allege any error worthy of Supreme Court review. The error alleged in the petition is essentially that the Federal Circuit misunderstood the specific facts set forth in the prosecution histories of the patents-in-suit and misapplied the law of claim construction to the particular patents in this case. (*See* Pet. at 17-19.) As specifically stated in Supreme Court Rule 10, however, "[a] petition for a writ of certiorari

is rarely granted when the asserted error consists of erroneous factual findings or the misapplication of a properly stated rule of law" (emphasis added). Even if the Petitioner's allegations were true--which they are not--the Petitioner has failed to provide a compelling reason why the Supreme Court should revisit the decision in this pedestrian case. The Petitioner's mere dissatisfaction with the Federal Circuit's decision does not merit the grant of a writ of certiorari. Accordingly, the petition should be denied.

Furthermore, on December 29, 1999, more than two months before the filing date of the petition, the district court in this case issued an Agreed Order consented to by the Petitioner dismissing the Petitioner's complaint with prejudice. (*See* Resp. App. A at 2a.) As a result, there is no longer an Article III "case or controversy" for the Supreme Court to decide. For this additional reason, the Supreme Court should deny the petition. U.S. Const. art. III, § 2.

COUNTERSTATEMENT OF THE CASE

The petition for a writ of certiorari is particularly meritless because it includes incomplete and misleading characterizations of the prosecution history of the patents-in-suit and the proceedings below. The following counterstatement of the case should serve to rectify any erroneous impressions created by the petition.

I. The Patents and Their Prosecution Histories

Although purporting to "faithfully" represent the statements it made during the prosecution of the patents-in-suit, it is the Petitioner--not the Federal Circuit--that has attempted to improperly "truncate" and "recast" the

prosecution history to recapture subject matter that was clearly relinquished in exchange for the allowance of the patents-in-suit. Indeed, the Petitioner has attempted to mask the statements that do not serve its purpose and to highlight only those statements that it believes support its litigation-induced interpretation of its claims. The petition invites the Supreme Court to "review the language of the [Federal Circuit's] opinion against the true prosecution history of the '531 patent." (Pet. at 19 (emphasis added).) The Respondents respectfully submit that the true prosecution history clearly supports the Federal Circuit's decision.

A. The Patents

The patents-in-suit are U.S. Patent No. 5,222,531 ("the '531 patent") and U.S. Patent No. 5,289,855 ("the '855 patent"). These patents relate to a hygienic liquid delivery system for bottled water coolers and dispensers. The application giving rise to the '855 patent was a continuation of the application leading to the '531 patent. As such, both patents share the same written description and drawings. They differ only in their claims, which recite the claimed invention in varying degrees of detail and include slightly different claim terminology.[1]

The Petitioner alleged at trial that claims 1-5 and 7-10 of the '531 patent and claims 1-3 of the '855 patent were

---

[1] The Petitioner has acknowledged that the applications leading to the patents-in-suit are closely related, and that the arguments made during prosecution of the '531 patent are relevant to the interpretation of the claims of the '831 patent. (Pet. at 3 n.1.)

infringed by the Respondents' no-spill adapters.[2] Each of these claims recites a "liquid container support and hygienic delivery system for dispensing drinking water or other potable liquid . . . ." (Pet. App. at B7, B10, B12.) One of the components included in the recited "system" is a "feed tube" or "feed probe" having "a hygienic flow path" or "fluid passage means" for dispensing liquid from the container and for admitting air into the container[3] (Pet. App. at B7, B10, B12.) For example, claim 1 of the '531 patent recites:

> an upstanding feed tube dimensioned to penetrate into said hollow tubular sleeve portion of said coaxial cap and said container neck to provide a hygienic flow path for delivering liquid from said inverted unpressurized container into said reservoir to said predetermined level **and** for admitting air from said reservoir above said liquid level into said container . . . .

(Pet. App. at B8 (emphasis added.).) Similarly, claim 7 of the '531 patent recites:

> [a] hollow feed tube having an internal bore and at least one radial opening . . . defining fluid passage means for dispensing liquid

---

[2] Claims 1 and 7 of the '531 patent and claim 1 of the '855 patent are the only independent claims at issue.

[3] The Petitioner has conceded that the "feed probe" element of claim 1 of the '855 patent should be interpreted the same way as the "feed tube" element of claim 1 of the '531 patent. (Pet at 3 n.1.)

> from said container into said reservoir . . . **and** for admitting air from said reservoir above said liquid level into said container . . . .

(Pet. App. at B11 (emphasis added).)

The written descriptions and the drawings of the patents-in-suit describe and show the recited feed tube as having a single flow path for both air and water. (*See* '531 patent, col. 5, lns. 42-51, Figs. 4a-4c; '855 patent, col. 5, lns. 44-50; Figs. 4a-4c.) The specifications contain no disclosure of a feed tube having separate flow paths for air and water.

B. The Prosecution History

During prosecution of the '531 patent, the Examiner rejected pending independent claims 16 and 22 (which issued as claims 1 and 7, respectively), *inter alia*, for obviousness under 35 U.S.C. § 103(a) in view of U.S. Patent No. 2,057,238 to Krug and U.S. Patent No. Re. 32,354 to Savage. (Pet. App. at E11.) The Krug patent relates to a dispensing apparatus that was primarily designed for dispensing beer. In particular, Krug discloses a closed pressurized system that includes a feed tube structure having separate flow paths for air and liquid. This separate flow path feature of the Krug patent is particularly relevant because, as explained above, the patents-in-suit do not disclose a feed tube having separate flow paths for air and water, but rather a feed tube having a single flow path for both air and water. This feature was thus a significant distinction between the claimed invention and the Krug patent.

In response to the Examiner's rejection based on Krug and Savage, the Petitioner amended independent claims 16 and 22 to recite in more detail the claimed feed tube as including "a hygienic flow path" (claim 16) and "fluid passage means" (claim 22) for "delivering" or "dispensing" liquid from the inverted container into the reservoir and "for admitting air" from the reservoir into the container. (Pet. App. at E15-22.) The Petitioner also made the following remarks regarding Krug:

> Krug has no "reservoir open at its upper end" as recited in the preamble of independent claims [1] and [7] and, more importantly therefore, cannot possibly teach or suggest "sealing means carried by said removable mounting means for sealingly closing said open upper end of said reservoir" (claim [1]) or **a "flow path"** (claim [1]) or **"fluid passage means"** (claim [7]) **for "delivering liquid** from said inverted unpressurized container (claim [1]) into said reservoir up to said predetermined maximum liquid level **and for admitting air** from said reservoir above said liquid level into said container" as recited in the body of each of applicants' independent claims [1] and [7].

(Pet. App. at E24 (underlining in original; boldfacing added).)

After submitting the above-mentioned response, the Petitioner conducted an in-person interview with the Examiner to discuss the rejections of claims 16 and 22 based on Krug and Savage. (Pet. App. at E28.) The interview with

the Examiner was documented in an Interview Summary Record prepared by the Examiner and placed in the Patent and Trademark Office's file for the application leading to the '531 patent. *Id.* Although the Interview Summary Record does not describe the particular arguments advanced by the Petitioner at the interview, it indicates that the Examiner and the Petitioner discussed the Krug and Savage patents, and that the arguments made by the Petitioner at the interview convinced the Examiner that claims 16 and 22 were allowable. *Id.*

Shortly after the interview, the Examiner issued a Notice of Allowability, which included the Examiner's Statement of Reasons for Allowance. In his Statement, the Examiner set forth the particular features of the claimed invention that the Examiner considered patentably distinct from the cited prior art:

> [i]n regard to claim 22, **the prior art of record does not teach a . . . feed tube as claimed wherein the feed tube has a passage means which <u>both</u> dispenses liquid from the container into the reservoir <u>and</u> admits air from the reservoir into the container**. In the Krug reference the coil 15 is the reservoir which receives liquid from the container 6 through the feed tube 13. However, 15 is a closed coil that is always submerged by the liquid in the container 6. **<u>Therefore, feed tube 13 does not provide a means for admitting air.</u> Note that Krug provides a <u>separate</u> conduit for exterior air 27/34 in order to relieve the vacuum in the container.**

(Pet. App. at E30 (emphasis added).) Notably, the Examiner's Statement points out in detail how--as argued by the Petitioner in its response--the claimed invention is distinct from Krug based on the fact that Krug fails to disclose a feed tube that has "a passage means which both dispenses liquid from the container into the reservoir and admits air from the reservoir into the container." (Pet. App. at E30 (emphasis added).)

The Examiner's Statement of Reasons for Allowance concluded with an invitation to the Petitioner to submit "[a]ny comments considered necessary" in light of the Examiner's remarks. (Pet. App. at E30.) Notwithstanding the Examiner's clear assertion that he considered the claimed invention as being limited to a system having a feed tube with a single flow path for both air and water, the Petitioner chose to remain silent and failed to express any disagreement with the Examiner's interpretation of the claims or the teachings of the prior art.

In the face of these facts, the Petitioner argues in the petition that it did not distinguish the Krug reference by arguing that the asserted claims include a single flow path for both air and water. The Respondents and the Federal Circuit disagree. When considered in light of the separate flow path feed tube disclosed in Krug, the Petitioner's remarks were clearly intended to distinguish Krug, *inter alia*, on the basis that Krug does not teach or suggest a single flow path or passage means "for delivering liquid from" the container "**and** for admitting air" into the container. Regardless of whether such an argument was actually necessary to overcome the Krug patent, the Petitioner plainly advanced it in an effort to obtain the patents-in-suit.

II. The Proceedings Below

A. The District Court Trial

The district court proceeding consisted of a bench trial that included an initial fact-finding portion wherein both parties presented witnesses on the relevant issues. After the fact-finding portion of the trial was complete, both parties submitted briefs regarding the various legal issues in the case including issues relating to the proper interpretation of the asserted claims. The interpretation of the feed tube element ultimately endorsed by the Federal Circuit was advanced by the Respondents in a brief, which was considered by the district court in its opinion. (Pet. App. at B26-27.) The district court, however, held that the asserted claims were not limited to a feed tube having a single flow path for both air and water, and found that the Respondents' adapters infringed the patents-in-suit.

B. The Federal Circuit's Decision

The Respondents appealed the district court's judgment to the Federal Circuit arguing, *inter alia*, that the district court improperly construed the claims to include a feed tube having separate flow paths for air and water. (Pet. App. at A6.) In accordance with the law of claim construction, the Federal Circuit examined the "intrinsic" evidence of the patents-in-suit to ascertain the meaning of the asserted claims. (Pet. App. at A6-7); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 991 (Fed. Cir. 1995) (*en banc*), *aff'd*, 517 U.S. 370 (1996); *Spectrum Int'l, Inc. v. Sterilite Corp.*, 164 F.3d 1372, 1378 (Fed. Cir. 1998); *CVI/Beta Ventures, Inc. v. Tura LP*, 112 F.3d 1146, 1152 (Fed. Cir. 1997). It initially examined the words of the

asserted claims and the specification of the patents, but determined that this evidence was inconclusive as to whether the claims are limited to a feed tube having a single flow path for both air and water. (Pet. App. at A7-9.)

The Federal Circuit then considered the prosecution histories of the patents-in-suit (i.e., the final piece of "intrinsic" evidence). (Pet. App. at A10-11.) It correctly noted that the prosecution history of a patent "limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance." (Pet. App. at A10 (quoting *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985).) It further pointed out that it is irrelevant whether a patentee relinquished a potential claim construction by amending the claim or by presenting arguments to distinguish a reference. (Pet. App. at A12); *Spectrum*, 164 F.3d at 1378-79.

In considering the remarks made by the Petitioner to distinguish its claims from the Krug Patent, the Federal Circuit cited at least the following three arguments advanced by the Petitioner: (1) Krug does not disclose a feed tube having a single flow path for both air and water; (2) Krug does not disclose a reservoir; and (3) Krug does not disclose an unpressurized container. (*See* Pet. App. at A11-13.) The Petitioner unsuccessfully argued to the Federal Circuit, and has argued again in its petition, that only the second and third of these arguments were actually necessary to distinguish the Krug patent. (Pet. at 9-10.) After considering the Petitioner's position, however, the Federal Circuit rejected it and held that it is "irrelevant whether Elkay emphasized [the feed tube] argument at the time, or indeed whether Elkay had to relinquish an interpretation of the feed tube limitation that

could cover more than one flow path for liquid and air." (Pet. App. at A12.) The Federal Circuit further noted that "it is the totality of the prosecution history that must be assessed, not the individual segments of the presentation made to the Patent and Trademark Office by the applicant . . . ." *Id.* In accordance with accepted precedent, the Federal Circuit merely decided that the Petitioner cannot now back out of the statements it made during prosecution to recapture subject matter that was clearly disavowed in exchange for its patents. *Id.*; *see also Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 30-34, 40-41 (1997); *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1356 (Fed. Cir. 1998); *Spectrum*, 164 F.3d at 1378-79; *CVI/Beta Ventures*, 112 F.3d at 1155; and *Standard Oil Co.*, 774 F.2d at 452.

Based on all of the "intrinsic" evidence, the Federal Circuit interpreted the asserted claims of the patents-in-suit as being limited to a no-spill adapter having a feed tube with a single flow path for both air and water. Because the Respondents' no-spill adapters have a feed tube with separate flow paths for air and water, the Federal Circuit decided that the Respondents were entitled to judgment as a matter of law on the issue of infringement. Accordingly, it reversed and vacated the district court's judgment and award of damages to the Petitioner. The Federal Circuit did not reach several of the Respondents' other grounds for non-infringement, as the feed tube limitation disposed of the case.

Following the Federal Circuit's decision, the Petitioner filed a combined petition for panel rehearing and rehearing *en banc* with the Federal Circuit, alleging the same errors argued in the petition for a writ of certiorari. After considering the combined petition and the Respondents'

answer, the Federal Circuit summarily denied all of the Petitioner's requests.

C. Post-Appeal Proceedings in the District Court

After the Federal Circuit issued its mandate reversing the district court's judgment of infringement, the parties were directed by the district court to attempt to come to an agreement on an order to resolve the issues flowing from the Federal Circuit's decision. After substantial correspondence between the parties regarding which items should be included in the order as well as numerous draft orders, the parties jointly executed and submitted an Agreed Order to the district court for its consideration and issuance. (Resp. App. A at 2a.) The district court issued the Agreed Order without modification.

Among the issues resolved by the Agreed Order was the proper disposition of the Petitioner's infringement complaint in light of the Federal Circuit's decision. The Agreed Order dismissed the Petitioner's complaint with prejudice. (Resp. App. A at 2a.) Conspicuously absent from the petition for a writ of certiorari is any mention of the fact that **the Petitioner voluntarily agreed to dismiss its infringement complaint with prejudice more than two months before filing the petition**. *Id.* Moreover, at no time did the Petitioner ever expressly reserve the right to file a petition for a writ of certiorari to this Court, notwithstanding its agreement to voluntarily dismiss its complaint.

REASONS FOR DENYING THE WRIT

I. The Petition Fails to Allege a Question Worthy of Supreme Court Review

The question raised in the petition for a writ of certiorari is essentially whether, after properly stating the law of claim construction, the Federal Circuit correctly understood the specific facts set forth in the prosecution histories of the patents-in-suit and correctly applied the law of claim construction to the particular patents in this case when it interpreted the claims to exclude a no-spill adapter having a feed tube with separate flow paths for air and water. Respondent's respectfully submit that the error alleged in the petition is not the type of error that is appropriate for Supreme Court review. In particular, Supreme Court Rule 10 provides that "[a] petition for a writ of certiorari will be granted only for compelling reasons," and that "[a] petition for a writ of certiorari is rarely granted when the asserted error consists of erroneous factual findings or the misapplication of a properly stated rule of law" (emphasis added). *See also U.S. v. Johnston*, 268 U.S. 220, 227 (1925) (noting that the Supreme Court does "not grant a certiorari to review evidence and discuss specific facts"); *Texas v. Mead*, 465 U.S. 1043 (1984) (Stevens, J., quoting *U.S. v. Johnston*); *Ross v. Moffitt*, 417 U.S. 600, 616-17 (1974) (Supreme Court review "is discretionary and depends on numerous factors other than the perceived correctness of the judgment we are asked to review").

Although interpretation of the claims of a patent is a question of law, *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996), the error alleged by the petition is not that the Federal Circuit applied an incorrect rule of law, but

rather that it misunderstood the particular facts set forth in the prosecution histories of the patents in this case. The petition fails to provide a compelling reason why the Supreme Court should grant a writ of certiorari to review this alleged factually-based error. Indeed, the decision below does not conflict with the decision of any other court, involves no issues of constitutional law, and presents no important questions of federal law. The petition for a writ of certiorari should therefore be denied.

II. The Federal Circuit Correctly Interpreted the Claims to Exclude a No-spill Adapter That Has a Feed Tube Having Separate Flow Paths for Air and Water

Even if the Supreme Court does not deny the petition as not being the type of question appropriate for Supreme Court Review, the Court should deny the petition because the Federal Circuit correctly interpreted the asserted claims of the patents-in-suit to exclude a no-spill adapter that has a feed tube having separate flow paths for air and water. In particular, the Federal Circuit properly found that the Petitioner disavowed an interpretation of the asserted claims that would include a feed tube having separate flow paths for air and water during prosecution of the '531 patent. Based on the proper interpretation of the claims, the Respondents' no-spill adapters cannot infringe the patents-in-suit, and so the Federal Circuit correctly reversed the district court's judgment of infringement.

The Petitioner has accused the Federal Circuit panel of distorting, altering, and intentionally disregarding portions of the prosecution histories of the patents-in-suit. (Pet. at 10-11.) Indeed, the tone of the petition would have the Supreme

Court believe that the Federal Circuit prepared its decision with actual malice toward the Petitioner. Contrary to the allegations in the petition, however, the well-reasoned decision of the Federal Circuit clearly evidences that the panel carefully and objectively considered the "true" prosecution history in its entirety when conducting its *de novo* interpretation of the asserted claims. As explained above, the Federal Circuit simply rejected the district court's incorrect claim construction in favor of the proper interpretation advanced by the Respondents.

A. The Federal Circuit Properly Interpreted the Claims Based On the Intrinsic Evidence of the Patents-in-suit

As set forth above, the Federal Circuit examined the "intrinsic" evidence of the patents-in-suit to ascertain the meaning of the feed tube element recited in each of the asserted claims. (Pet. App. at A6-7); *Markman*, 52 F.3d at 991; *Spectrum*, 164 F.3d at 1378; *CVI/Beta Ventures*, 112 F.3d at 1152. Although it found the claim language and the specifications of the patents not helpful in construing the feed tube element, the Federal Circuit determined that the Petitioner clearly disavowed during prosecution any interpretation of the asserted claims that would include a feed tube having separate flow paths for air and water. (Pet. App. at A11.) Because the Respondents' no-spill adapters do not have a feed tube with a single flow path for both air and water, the Federal Circuit correctly reversed the district court's judgment of infringement.

Moreover, the Federal Circuit properly gave weight to the Examiner's Statement of Reasons for Allowance, which made clear that the Examiner understood and relied

upon the Petitioner's remarks as disavowing a feed tube having separate flow paths for air and water. In particular, the Examiner stated that the claims were allowed, *inter alia*, because the prior art of record does not teach a "feed tube as claimed wherein the feed tube has a passage means which **both** dispenses liquid from the container into the reservoir **and** admits air from the reservoir into the container." (Pet. App. at E30 (emphasis added).) A clearer statement of the perceived scope of the claimed invention cannot be imagined. The Petitioner, however, in its selective account of the prosecution history, fails to deal with the legal effect of the Examiner's remarks.

Furthermore, despite the Examiner's invitation to respond to his Statement of Reasons for Allowance, the Petitioner remained silent. (*See* Pet. App. at E30-31.) If the Petitioner disagreed with the Examiner's interpretation, it was incumbent upon the Petitioner to object to the Examiner's Statement and place the public on notice that it viewed its claims as encompassing a feed tube with multiple passages that permitted separate air and water flow paths. To date, however, the Petitioner has offered no explanation whatsoever for why it failed to address the Examiner's comments if it indeed believed them to be incorrect. In light of the Petitioner's remarks and the Examiner's Statement of Reasons for Allowance, it was entirely proper for the Federal Circuit to conclude that both the Examiner and the Petitioner understood the claims to exclude a feed tube having separate flow paths for air and water.

The Petitioner has argued that the Federal Circuit's decision is erroneous because it "explicitly stated [that] it chose not to rely on the claim language Elkay added by amendment or argued by Elkay in its remarks" to the Patent

and Trademark Office. (Pet. at 10.) It has also alleged that the Federal Circuit's decision improperly "relied on argument 'extrinsic' to the actual record developed by the applicants and the Examiner in the U.S. Patent and Trademark Office." (Pet. at 14). In particular, the Petitioner has argued that by including ellipses and by quoting only selected portions of the Examiner's Statement of Reasons for Allowance, the prosecution history remarks relied on by the Federal Circuit became "extrinsic" evidence. (Pet. at 11-12.)

As an initial matter, the Federal Circuit expressly considered all of the language of the asserted claims and the specifications, as well as the prosecution histories including the claim amendments and the particular remarks relied upon by the Petitioner. (Pet. App. at A7-13.) It found, however, that the claim amendments and the particular remarks relied upon by the Petitioner were not helpful or controlling in determining whether the Petitioner had disavowed an interpretation that included a feed tube having separate flow paths for air and water. (Pet App. at A7-9.) The mere fact that some language was omitted from the Federal Circuit's written decision does not in any way suggest that the Federal Circuit did not consider such language.

Moreover, nowhere in the decision did the Federal Circuit ever rely on or even consider "extrinsic" evidence to interpret the asserted claims of the patents-in-suit. Contrary to the Petitioner's apparent misunderstanding of the law, remarks made during prosecution of the patents-in-suit are intrinsic evidence, not extrinsic evidence. *Markman*, 52 F.3d at 991; *Spectrum*, 164 F.3d at 1378; *CVI/Beta Ventures*, 112 F.3d at 1152. Merely quoting relevant portions of the remarks made by a patentee during prosecution, rather than quoting the entire prosecution history verbatim, does not

somehow magically transform such remarks into extrinsic evidence.

Although the Federal Circuit's decision included ellipses in its decision, it did so merely to help parse the Petitioner's convoluted remarks in an effort to point out how the Petitioner in fact made statements distinguishing Krug based on the Petitioner's single flow path feed tube. (*See* Pet. App. at A9-12.) Similarly, the Federal Circuit quoted only selected portions of the Examiner's Statement of Reasons for Allowance to emphasize that the Examiner clearly understood the Petitioner's remarks as disavowing a feed tube having separate flow paths for air and water. The portions quoted were merely examples of the earlier, contradictory position that the Petitioner had advocated in the Patent and Trademark Office in order to gain allowance of its patent applications. The omitted language in no way alters the meaning of Petitioner's remarks or the legal effect of its concessions that the claimed invention was limited to a device with a single flow path for both air and water.

The Petitioner's reliance on cases such as *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17 (1997), and *Graham v. John Deere Co.*, 383 U.S. 1 (1966), for the proposition that the Federal Circuit decision must quote the patent prosecution history word-for-word to prove to the Petitioner that it actually considered each and every remark or claim amendment is misplaced. (Pet. at 13-15.) These cases do not hold that every single word in the prosecution history is necessarily useful or enlightening in interpreting a disputed claim term, and they certainly do not state or imply any particular requirements for proving that the entire prosecution history was actually considered.

Although the Petitioner may prefer otherwise, the Federal Circuit is not required to issue an opinion that quotes word-for-word every fact and issue raised in a party's brief. Nor does it follow, as the Petitioner has alleged, that because the Federal Circuit failed to quote verbatim pages upon pages of the prosecution history, it did not consider the prosecution history in its entirety. The Petitioner's allegation that the Federal Circuit did not consider the "true" prosecution history merely because its decision omitted irrelevant portions is completely meritless. Instead, as noted above, it is the Petitioner who seeks to downplay or ignore statements it made or that were made by the Examiner which are inconsistent with its litigation-induced interpretation of the claims.

B. The Public is Entitled to Rely on the Petitioner's Unequivocal Statements Made to Obtain the Patents-in-suit

Notwithstanding its statements on the public record and its unexplained failure to respond to the Examiner's Statement of Reasons for Allowance, the Petitioner has alleged that the feed tube element should not be limited to having a single flow path for both air and water because Krug does not disclose a reservoir or an unpressurized container. (Pet. at 9-10.) Essentially, the Petitioner has alleged that Krug could have been distinguished on the basis of its lack of reservoir and its pressurized container alone, and so the Petitioner's remarks relating to the feed tube configuration should be disregarded. (Pet. at 11.) Petitioner's allegation, however, is mere speculation and does not comply with the law of claim interpretation.

The Petitioner has never shown and indeed is not even permitted to attempt to show that the Examiner would have allowed the patents-in-suit solely based on the fact that Krug has a pressurized container and lacks a reservoir. *Bai*, 160 F.3d at 1356 (noting that a patentee cannot challenge in an infringement action the necessity of assertions made during prosecution to overcome prior art rejections). The Examiner's Statement of Reasons for Allowance plainly indicates that the Examiner considered each distinction argued by the Petitioner, and that he decided to allow the claims at issue, *inter alia*, based on the Petitioner's assertion that the claimed invention is distinguished from Krug because Krug does not have a feed tube that has a single flow path for both air and water. (*See* Pet. App. at E30.)

Moreover, the patent law clearly provides that the public is entitled to rely on statements made by the Petitioner during prosecution to distinguish prior art references from its claimed invention. *Warner-Jenkinson*, 520 U.S. at 33; *Spectrum*, 164 F.3d at 1378-79; *Digital Biometrics, Inc. v. Identix, Inc.*, 149 F.3d 1335, 1347 (Fed. Cir. 1998); *Bai*, 160 F.3d at 1355-56. By "distinguishing the claimed invention over the prior art, [the Petitioner] is indicating what the claims do not cover." *Spectrum*, 164 F.3d at 1378-79 (emphasis added). Indeed, the public is entitled to rely on the Petitioner's statements, even if such statements were not actually required to obtain the patent. *Bai*, 160 F.3d at 1356.

As much as it may regret the statements it made during prosecution of the patents-in-suit, the Petitioner's remarks clearly placed the public on notice that the claims of its patents were distinguishable from the Krug patent, *inter alia*, on the basis of their single flow path feed tube. The Respondents and other members of the public were entitled

to rely on the Petitioner's declaration that its claims excluded a feed tube having separate flow paths for air and water. The Petitioner cannot now pick and choose which limitations in retrospect it should not have argued to the Examiner, so that it can recapture disclaimed subject matter that is necessary to enforce it patents. *Spectrum*, 164 F.3d at 1379.

For the reasons explained above, the Federal Circuit correctly interpreted the claims of the patents-in-suit to exclude a no-spill adapter with a feed tube having separate flow paths for air and water. Because the Respondent's no-spill adapters do not include a feed tube having a single flow path for both air and water, the Federal Circuit correctly reversed the district court's judgment of infringement. The petition for a writ of certiorari should therefore be denied.

III. There Is No Longer a Case or Controversy Between the Parties

As explained above, on December 29, 1999, more than two months before filing the petition for a writ of certiorari, the Petitioner consented to the dismissal of its complaint with prejudice, and the district court issued an Agreed Order signed by both parties effectuating the dismissal. (Opp. App. A at 1.) The Petitioner's consenting to the issuance of the Agreed Order extinguished the "case or controversy" between the parties related to the issue raised in the petition, as well as the jurisdiction of the Supreme Court to accept the petition. *Druhan v. American Mutual Life*, 166 F.3d 1324, 1326 (11th Cir. 1999) (holding that there was no longer a "case or controversy" and therefore no jurisdiction to decide the appeal after the plaintiff voluntarily dismissed its complaint with prejudice); *Woodward v. STP Corp.*, 170 F.3d 1043, 1044 (11th Cir. 1999) (holding that the final

judgment resulting from the plaintiff's voluntary dismissal of its complaint with prejudice was not appealable "because it was obtained at the request of the plaintiff and there is therefore no 'case or controversy' in regard to it."); *Association of Commmunity Org. For Reform Now v. Edgar*, 99 F.3d 261, 262 (7th Cir. 1996) ("A party to a consent decree or other judgment entered by consent may not appeal unless it explicitly reserves the right to appeal.").

By agreeing to the dismissal of its complaint with prejudice without reserving the right to file a petition for a writ of certiorari, the Petitioner accepted the decision of the Federal Circuit, gave up its right to petition the Supreme Court for a writ of certiorari, and ended its case. *Druhan*, 166 F.3d at 1326; *Woodward*, 170 F.3d at 1044; *Edgar*, 99 F.3d at 262. Accordingly, in light of the "case or controversy" requirement of Article III of the United States Constitution, the Supreme Court should deny the petition. U.S. Const. art. III, § 2; *Deakins v. Monaghan*, 484 U.S. 193, 199 (1988) ("Article III of the Constitution limits federal courts to the adjudication of actual, ongoing controversies between litigants."); *Preiser v. Newkirk*, 422 U.S. 395, 401 (1975) ("The exercise of judicial power under Art. III of the Constitution depends on the existence of a case or controversy.").

CONCLUSION

The purpose of a writ of certiorari is not to correct alleged misapplications of properly stated rules of law by the courts of appeals. Indeed, the Petitioner has already brought to the Federal Circuit's attention in a combined petition for panel rehearing and rehearing *en banc* the same errors alleged in the petition for a writ of certiorari. Instead of

presenting issues worthy of Supreme Court review, the Petitioner essentially seeks the same rehearing in this Court to correct what it perceives as the Federal Circuit's misunderstanding of the prosecution histories of the patents-in-suit. For the foregoing reasons, the petition should be denied.

Respectfully submitted. March 6, 2000

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APPENDIX

RESPONDENTS'
APPENDIX A

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

Civil Action No. 93-CV-5106 WRA

ELKAY MANUFACTURING COMPANY
Plaintiff,

v.

EBCO MANUFACTURING COMPANY
and EBTECH CORPORATION,
Defendants.

AGREED ORDER VACATING THE INJUNCTION
AND THE JUDGMENT AS TO INFRINGEMENT
AND DAMAGES

In light of the November 12, 1999 mandate of the Federal Circuit reversing the finding of infringement and vacating the award of damages in the above-referenced case,

IT IS HEREBY ORDERED THAT:

1. The Judgment of infringement of Elkay's U.S. Patent Nos. 5,222,531 (the '531 patent) and 5,289,855 (the '855 patent) by Ebco and Ebtech in the manufacture, use, sale, and offering for sale of WaterGuard I, II, and III no-spill adapters is vacated.

2. Elkay's Complaint asserting infringement of the '531 and '855 patents is dismissed with prejudice.
3. Ebco and Ebtech have failed to prove by clear and convincing evidence that the asserted claims of U.S. Patent Nos. 5,222,531 and 5,289,855 are invalid and unenforceable.
4. The counterclaims of Ebco and Ebtech seeking a declaratory judgment that the '531 and '855 patents are invalid and unenforceable are dismissed as moot.
5. The Court's awards of damages in the July 10, 1998 Judgment and the February 5, 1999 Supplemental Judgment are vacated.
6. The Court's award of Federal Rule of Civil Procedure 54(d) costs to Elkay in the February 5, 1999 Supplemental Judgment is vacated.
7. The permanent injunction entered in the Court's July 10, 1998 Order, as amended July 30, 1998, enjoining Ebco and Ebtech from manufacturing, using, selling, and offering for sale WaterGuard I, II, and III no-spill adapters is vacated.

Agreed to by:

/s/ Charles H. Mottier
Attorney for Elkay

/s/ Mark W. Hetzler
Attorney for Ebco and Ebtech

/s/ Wayne R. Andersen
United States District Judge

Dated: December 29, 1999

Supreme Court, U.S.
FILED
MAR 16 2000
CLERK

(3)

No. 99-1305

In The
Supreme Court of the United States

ELKAY MANUFACTURING COMPANY,
Petitioner,

v.

EBCO MANUFACTURING COMPANY
and EBTECH CORPORATION,
Respondents.

On Petition For Writ Of Certiorari To The United States Court Of Appeals For The Federal Circuit

PETITIONER'S REPLY TO BRIEF IN OPPOSITION TO PETITION FOR WRIT OF CERTIORARI

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PARTIES TO THE PROCEEDING

The petitioner, Elkay Manufacturing Company, was the plaintiff-appellee below. The respondents, Ebco Manufacturing Company and Ebtech Corporation, were the defendants-appellants below. There are no other parties to this litigation.

Petitioner, Elkay Manufacturing Company, has no parent corporation and no publicly held company owns 10% or more of its stock.

TABLE OF CONTENTS

Page

PARTIES TO THE PROCEEDING i

TABLE OF CONTENTS ii

TABLE OF AUTHORITIES iii

TABLE OF APPENDICES iv

I. INTRODUCTION 1

II. PETITIONER'S ARGUMENT IN REPLY 1

A. This Case Involves Important Issues Of Patent Claim Interpretation That Significantly Impact The Public, Other Patentees And Litigants, And The Courts Below 1

B. The Federal Circuit Committed Numerous Errors Of Law And Disregarded The Controlling Precedents Of This Court And Its Own Prior *En Banc* Decisions 3

C. Petitioner Did Not Waive Or Forfeit Its Right To File And Pursue This Petition 7

III. CONCLUSION 10

APPENDIX G-1

TABLE OF AUTHORITIES

Page

Cases

Association of Community Org. for Reform Now v. Edgar,
99 F.3d 261 (7th Cir. 1996) 7, 8

Dickinson v. Zurko,
527 U.S. 150 (1999) 6

Druhan v. American Mutual Life,
166 F.3d 1324 (11th Cir. 1999) 7

Markman v. Westview Instruments, Inc.,
517 U.S. 370 (1996) 3

Markman v. Westview Instruments, Inc.,
52 F.3d 967 (Fed. Cir. 1995) (en banc) 3

Vitronics Corp. v. Conceptronic, Inc.,
90 F.3d 1576 (Fed. Cir. 1996) 2, 3

Warner-Jenkinson Co. v. Hilton Davis Chemical Co.,
520 U.S. 17 (1997) 6

Woodward v. STP Corp.,
170 F.3d 1043 (11th Cir. 1999) 7

Rules

Supreme Court Rule 10(a) 3

TABLE OF APPENDICES

Page

Minute Order of the United States District Court for the Northern District of Illinois in 93 C 5106 on March 13, 2000 ..... G-1

Excerpt from Transcript of Hearing before Hon. Wayne R. Andersen in 93 C 5106 on March 7, 2000 ..... H-1

Excerpt from Transcript of Hearing before Hon. Wayne R. Andersen in 93 C 5106 on March 13, 2000 ..... I-1

I. INTRODUCTION

Respondents, Ebco Manufacturing Company and Ebtech Corporation (collectively, Ebco), allege three reasons why the Petition should be denied:

1. Ebco asserts this case does not raise any issue worthy of consideration by the Supreme Court;

2. Ebco contends the decision below does not conflict with the decisions of this or any other court, involves no issue of constitutional law and presents no important question of federal law; and

3. Ebco argues that Elkay waived its right to pursue this Petition.

None of Ebco's arguments are well-founded. Each of Ebco's arguments are addressed below *in seriatim* in the sections that follow. The Petition should be granted.

II. PETITIONER'S ARGUMENT IN REPLY

A. This Case Involves Important Issues Of Patent Claim Interpretation That Significantly Impact The Public, Other Patentees And Litigants, And The Courts Below

This case raises an important question of federal law. Proper claim interpretation is a matter of considerable importance to patentees, competitors in the

relevant art, the U.S. Patent & Trademark Office and the Examiners responsible for allowing or rejecting patent claims, and the U.S. District Court judges who must construe patent claims. At issue is the standard and procedure a court must follow to properly interpret patent claims.

To this point, the precedents of this Court and the Federal Circuit have required that patent claims must be construed in view of the claims themselves, the patent specification, and the prosecution history of the patent in the U.S. Patent & Trademark Office, what is commonly referred to as the "intrinsic evidence of record." *See infra* II.B. Anything that does not qualify as one of these three types of evidence (e.g., inventor or expert testimony, treatises, or litigation induced argument) is considered to be "extrinsic" evidence. Except in extraordinary situations, which are not present in this case, it is generally impermissible to rely on extrinsic evidence to construe patent claims. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996).

As set forth in Elkay's original Petition, and as amplified in the following section of this Reply, the Federal Circuit's decision below directly conflicts with the precedential decisions of this Court, as well as its own prior *en banc* decisions, by imputing to Elkay extrinsic arguments that have no basis in the language of the claims, the specification or the prosecution history. Such a radical departure by the Federal Circuit from the established precedents of this Court, *see infra* II.B, should not occur without express review by this Court. Such a review is both permitted and warranted under this Court's general powers to review legal questions

pertaining to issues of national importance and public policy, as well as pursuant to its supervisory authority. Supreme Court Rule 10(a). This Court should grant the Petition and unequivocally hold that the Federal Circuit does not have the authority to disregard important elements of disputed claims, or an applicant's arguments during prosecution, or to disregard or alter the explicit findings of fact stated by the Examiner in his reasons for allowing those claims.

B. The Federal Circuit Committed Numerous Errors Of Law And Disregarded The Controlling Precedents Of This Court And Its Own Prior *En Banc* Decisions

By imputing to Elkay phantom arguments that cannot be found anywhere in the prosecution history, the Federal Circuit inherently relied on "extrinsic" evidence to interpret claims 1 and 7 of U.S. patent 5,222,531. This reliance is directly contrary to the controlling precedents of this Court and the Federal Circuit, and if left to stand, the decision of the Federal Circuit below would have the effect of abolishing in all but name the requirement that claims must be interpreted in view of the actual language of the claims, the specification and the prosecution history. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384 (1996) (claims must be construed in light of the patent specification); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc) (claims must be construed in view of the intrinsic evidence of record, i.e., the claims, specification and prosecution history); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (same).

Such a dramatic shift in the existing law should not be effectuated without explicit review by this Court.

The specific *legal* error committed by the Federal Circuit is in concluding, as advanced by Ebco, that Elkay argued that "Krug does not disclose a feed tube having a single flow path for both air and water" to distinguish its invention from the cited prior art. Resp. Brief at 10, Appendix A at A11-13. Elkay **made no such argument** during the prosecution of its patent claims, on appeal to the Federal Circuit, or in its Petition for a writ of certiorari.

Once the procedural history of this case is examined, it is evident that the extraneous arguments credited to Elkay were the direct result of a self-serving and deliberate misstatement by Ebco, which it continues to repeat before this Court:

> In response to the Examiner's rejection based on Krug and Savage, the Petitioner amended the independent claims 16 and 22 to recite in more detail the claimed feed tube as including "a hygienic flow path" (claim 16) and "fluid passage means" (claim 22) for "delivering" or "dispensing" liquid from the inverted container into the reservoir and "for admitting air" from the reservoir into the container.

Resp. Brief at 6. This statement is affirmatively and demonstrably false. *Every single claim limitation* that Ebco asserts was added to distinguish Krug and Savage was in the claims as originally filed. Appendix E at E15-

22 (underlining signifies language added by amendment). *None* of the claim terms identified by Ebco were added by amendment, either before or after the Examiner initially rejected the claims based on Krug and Savage. Indeed, Ebco's misstatement actually *omits* the language that was added to distinguish the claims from Krug and Savage. *Id.* at E15-22. Ebco's affirmative misstatement thereafter became the basis for the Federal Circuit imputing to Elkay, as a matter of law, an argument that it never made.

As recounted in the Petition, Elkay's remarks in support if its amendment of claim 1 were directed to the fact that Krug lacked a *sealing means* and that Krug did not deliver water from an *unpressurized* container. Pet. Brief at 9. Elkay made this argument by quoting in its remarks the entirety of the claim elements, including the amended language that added the requirements of *sealing means* and an *unpressurized* container. Appendix E at E24. In view of the fact that the Examiner rejected the initially filed claims, only the claim language added by amendment was used by Elkay to distinguish over Krug and Savage. The Federal Circuit, however, at Ebco's instigation, relied on the *original claim language*, which certainly was not used by Elkay to distinguish its claims over Krug and Savage, and it is untrue that Elkay argued that "Krug does not disclose a feed tube having a single flow path for both air and water." Resp. Brief at 10, Appendix A at A11-13.

The "support" for the Federal Circuit's claim construction can only be found in Ebco's arguments, not in the claims, specification, or prosecution history of the patents. In contrast, the language in the claims added by

amendment and underlined by Elkay formed the basis for its arguments to distinguish over Krug and Savage. But the Federal Circuit ignored Elkay's underlined amendatory language. In doing so, the Federal Circuit departed from this Court's admonition in *Warner-Jenkinson* that the applicant's amendments and the reasons for them must be carefully considered. *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 32-34 & n.7 (1997).

The Federal Circuit then compounded this legal error by ignoring material portions of the Examiner's Reasons for Allowance. Pet. Brief at 11-13. After having impermissibly relied on phantom "amendments" and "arguments" asserted by Ebco that are extrinsic to the *actual* prosecution history record of the patents in suit, the Federal Circuit's decision proceeds to *expunge* from the actual record relevant portions of the Examiner's Reasons for Allowance which contradict the impermissible extrinsic evidence. By expunging and truncating the Examiner's Reasons for Allowance, the Federal Circuit accorded no deference to the Examiner's factual findings as to how Elkay's claims distinguished over the prior art. Thus, the Federal Circuit exceeded its authority by impermissibly ignoring and altering the Examiner's explicit fact finding as stated in the Reasons for Allowance. *Dickinson v. Zurko*, 527 U.S. 150 (1999). That, too, was legal error.

C. Petitioner Did Not Waive Or Forfeit Its Right To File And Pursue This Petition

In its Opposition brief, Ebco argues that the "Agreed Order" entered by the district court on December 29, 1999, Resp. App. A at 1, extinguishes the case or controversy "between the parties related to the issue raised in the petition, as well as the jurisdiction of the Supreme Court to accept the petition." Resp. Brief. at 21. Ebco fails to cite any authority from this Court in support of this position, and instead relies on *Druhan v. American Mutual Life*, 166 F.3d 1324 (11th Cir. 1999), and *Woodward v. STP Corp.*, 170 F.3d 1043 (11th Cir. 1999). In both of these cases, the Eleventh Circuit held that the plaintiffs there extinguished the case or controversy by voluntarily moving to dismiss their cases *prior to trial*. *Druhan*, 166 F.3d at 1325; *Woodward*, 170 F.3d at 1044. Ebco also relies on *Association of Community Org. for Reform Now v. Edgar*, 99 F.3d 261 (7th Cir. 1996). In *Edgar*, the parties again settled their disputes and entered into a consent judgment *without a trial*. In the present case, the parties fully litigated the issues before the district court and the Federal Circuit, and those courts resolved the issues necessary for their respective decisions.

In framing the arguments in its Opposition brief, Ebco attempts to portray the December 29, 1999 Order as a consent judgment, and then cites *Edgar* for the proposition that a party to a consent judgment cannot appeal the judgment without an express reservation to that effect. Neither Elkay nor Ebco, however, have agreed to or consented in the resolution of contested

issues in this case, and the district court's Order of December 29 is not a consent judgment in the usual sense of that term. The record is irrefutably clear that the December 29 Order was prepared at the request of the district court to give effect to the Federal Circuit's decision and mandate. Appendix H at H2. Nor does that Order evidence any intent by Elkay to relinquish its right to petition this Court for a writ of certiorari. Unmentioned by Ebco is the fact that Chief Judge Posner in *Edgar* expressly recognized that an "agreed" or "consent" order in a contested case, which is prepared in view of a court decision and at the trial judge's request, carries "no implication of any waiver of the right to appeal." *Edgar*, 99 F.3d at 262.

Moreover, Ebco's own conduct and representations before the district court affirmatively demonstrate that the case or controversy between the parties as to the issue raised in Elkay's Petition has never terminated.[1] Prior to filing its Opposition Brief in this Court, but after entry of the district court's December 29, 1999 Order, which Ebco argues extinguishes any case or controversy as to the issue of infringement, Ebco filed a motion before the district court for an entry of judgment in its favor on its counterclaim for a declaratory judgment of non-infringement. Ebco's argument before this Court that no case or controversy exists between the parties on the issues raised in Elkay's Petition is fatally discredited in view of Ebco's simultaneous attempt to

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[1] The issue raised in Elkay's Petition as disputed between the parties is whether the Federal Circuit committed legal error in ruling that Ebco did not infringe Elkay's claimed inventions as a matter of law.

obtain from the district court a declaratory judgment of non-infringement which is dependent upon there being a continuing case or controversy between the parties.

After being made aware of Ebco's argument that the district court order of December 29, 1999, somehow divests this Court of jurisdiction to consider Elkay's Petition, the district court on March 13, 2000, vacated the December 29 Order.[2] Appendix G at G1; *see also* Appendix I at I2-5. The district court's March 13, 2000 Order expressly recognizes that "substantial differences *have always existed* between the parties with respect to the legal effect of [the Federal Circuit's] mandate." Appendix G at G1 (emphasis added). Importantly, the district court's order explicitly states what has always been the understanding of the district court, Elkay and Ebco (as demonstrated by its arguments and actions before the district court), i.e., that a case or controversy has always existed and continues to exist between the parties as to the legal effect and validity of the Federal Circuit's decision and mandate, and that Elkay did not relinquish its right to petition this Court for a writ of certiorari. Any doubt as to whether an actual case or controversy exists and whether Elkay has the right to petition this Court for a writ of certiorari is conclusively put to rest by the district court's Order of March 13, 2000.

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[2] The district court's March 13, 2000 Order left intact paragraph 7 of the December 29, 1999 Order, which vacated the injunction entered after the trial.

III. CONCLUSION

For the reasons set forth above and in the Petition, Elkay prays for a writ of certiorari and requests that this Court vacate the decision of the Court of Appeals and direct that Elkay's patent claims be construed in relation to the actual language of the prosecution history, or in the alternative, to review, reverse and remand the Federal Circuit's erroneous judgment and opinion.

Respectfully submitted,

March 15, 2000

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APPENDIX

UNITED STATES DISTRICT COURT,
NORTHERN DISTRICT OF ILLINOIS

Elkay vs. Ebco, 93 C 5106

3/13/2000

MINUTE ORDER

Having heard oral argument of the parties and having considered their briefs with respect to the mandate of the Federal Circuit Court of Appeals and this Court having now concluded that substantial differences have always existed between the parties with respect to the legal effect of that mandate, it is hereby ordered that paragraphs 1, 2, 3, 4, 5 and 6 of the "Agreed order vacating the injunction and the judgment as to infringement and damages" entered by this Court on December 29, 1999 are hereby vacated. Plaintiff may not attempt to enforce the awards of damages previously entered in this case. Document [301-2] setting a timetable for the petition of costs is vacated. Parties are invited to move the Court to enter a final order in accordance with any then outstanding appellate mandate when the United States Supreme Court has concluded its action.

/s/ Wayne R. Andersen

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

ELKAY MANUFACTURING COMPANY,

Docket No. 93 C 5106

Plaintiff,

vs.

Chicago, Illinois
March 7, 2000

EBCO MANUFACTURING COMPANY
and
EBTECH CORPORATION,

1:00 o'clock p.m.

Defendants.

TRANSCRIPT OF PROCEEDINGS – MOTION
BEFORE THE HONORABLE WAYNE R.
ANDERSEN

APPEARANCES:

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Page 32
. . .

THE COURT: I mean I will -- obviously I can't invest myself with jurisdiction if I don't have it, but I will say on the record that prior to the entry of the judgment order that stands as of this moment in time, I had discussed by telephone with the parties and I -- and I believe with you --

MR. SHEPPARD: Yes.

THE COURT: -- knowing that this is a complicated matter, the idea of one of the parties drafting an order, exchanging copies of that order with each other so that the language in the order could be agreed upon, not because one agreed with the world-affecting result of the order, but rather because it would comply with the mandate of the Court of Appeals. And I think that was -- so whatever was done by the parties in that regard was

done in a cooperative sense at my instigation. I don't think it was in any way indicated by the loser there, by Elkay, that it agreed with the substance of that order and but simply was to accommodate the Court's request.

. . .

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

ELKAY MANUFACTURING COMPANY,

Docket No. 93 C 5106

Plaintiff,

vs.

Chicago, Illinois
March 13, 2000

EBCO MANUFACTURING COMPANY
and
EBTECH CORPORATION,

9:30 o'clock A.M.

Defendants.

TRANSCRIPT OF PROCEEDINGS – MOTION
BEFORE THE HONORABLE WAYNE R.
ANDERSEN

APPEARANCES:

For the Plaintiff: LEYDIG, VOIT & MAYER, LTD.
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(Proceedings heard in chambers.)

Page 12, line 13 – Page 15, line 14

THE COURT: It has been my experience as an attorney and as a judge that unless all matters to a potential agreement are agreed to, that usually there isn't what I think of as an agreement. I have learned in life that a lot of times little differences can overcome big -- big portions of an agreement.

And it -- it seems to me that despite the cover letters and the knowledge that there might be subsidiary agreements to be worked out later between the parties, that what was submitted to me entitled Agreed Order vacating the injunction and the judgment as to infringement and

damages signed by me on December 29th is not really an agreed order within my understanding of that term. I don't dispute that within the party's understanding it might have been an agreed order, but this is not what I consider an agreed order.

The defendant Ebco is quite reasonably claiming that it is entitled to judgment with respect to the declaration of noninfringement. My own reading of this order, the agreed order, would seem to make that request contradictory to paragraph 4 of that agreed order. Whether or not the entry of this order has any impact on the right of the Supreme Court to review the decision of the Court of Appeals remains an uncertainty and mystery in my mind, not being an expert in that area of the law.

And I think it was a mistake for me when I saw the words "agreed order" on this order to believe that the parties really had reached an agreement with respect to how the mandate of the Federal Circuit needed to be implemented. In fact, as we sit here today there is no agreement. And had I reviewed Mr. Hetzler's [Ebco's counsel] letter more carefully, I would have discovered at that point in time that there was a substantial disagreement which prevented us from, by agreement, disposing of the case on remand.

Since then two additional controversies have arisen explicitly, one, the matter of cost which is a very substantial controversy, and, two, the matter of the impact of any entry of the Court -- any entry of an order by the Court on the power of the Supreme Court to hear something.

Had I known at the time that the case was going to be appealed to the Supreme Court, what I am sure I would have done is instantly alleviate Ebco and Ebtech from any of the injunctive aspects of my judgment order against them, believing that now they are very unlikely -- that the plaintiff Elkay is very unlikely to lose on appeal. So I don't think Ebco and Ebtech should be in a position of suffering any negative consequences because of my failure to finally comply with the mandate. But I also would, I think quite sensibly, outweigh -- wait out the decision of the Supreme Court to see whether or not there might be any further change.

And so what I am going to do right now is vacate the order of December 29th, 1999 and indicate on the record that I do believe that paragraph 7 of that order, "The permanent injunction entered in the Court's July 10, 1999 order as amended July 30, 1999 enjoining Ebco and Ebtech from manufacturing, using, selling and offering for sale WaterGuard I, II and III no-spill adapters is vacated." I think that that paragraph should become the order of this Court.

I don't see any reason why Ebco should suffer further delayed disability given the decision of the Court of Appeals. But the rather complex impact of that decision on everything else as well as any inference that might be drawn by the Supreme Court of my response to the mandate I think should await their ruling.

So I am going to vacate this order, but I am also going to provide by a minute order language exactly the same as paragraph 7 of the December 29th order, which I will try not to refer to as "agreed order," because by my

definition of agreed order it is not an agreed order, and let the parties negotiate to the future -- in the future. And if you can come up with an agreed order that disposes of everything before the Court, fine. If you can't, then I will await the Supreme Court's final statement on this matter and then I will review whatever mandate I get from the Supreme Court or the Court of Appeals and try to do my best to interpret it and enter an order in accordance with it.